

A GAZETTEER OF SURFACE-MINE LAKES,  
EASTERN INTERIOR COAL PROVINCE, ILLINOIS

By David C. Voelker

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GEOLOGICAL SURVEY

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## FACTORS FOR CONVERTING INCH-POUND UNITS TO INTERNATIONAL SYSTEM OF UNITS (SI)

<u>Multiply inch-pound units</u>	<u>By</u>	<u>To obtain SI units</u>
acre	0.4047	hectare
foot (ft)	0.3048	meter (m)
mile (mi)	1.609	kilometer (km)

## GLOSSARY

- CHEMOCLINE - The water layer separating the epilimnion and hypolimnion that exhibits a rapid change in chemical composition. The chemocline may not always break down during seasonal turnovers.
- EPILIMNION - The upper layer of warm, circulating water in a thermally stratified lake that usually contains more oxygen than the lower layers.
- HYPOLIMNION - The lowermost, noncirculating layer of cold water in a thermally stratified lake, usually deficient of oxygen during part of the summer.
- METALIMNION - The zone between the epilimnion and the hypolimnion that exhibits a rapid drop in temperature, including a lesser gradient on either side of the thermocline.
- THERMOCLINE - A layer of water usually 2 to 3 meters thick, between the warmer, surface zone and the colder, deep-water zone in a thermally stratified body of water, in which the temperature decreases rapidly with depth. This is a seasonal condition.

A GAZETTEER OF SURFACE-MINE LAKES,  
EASTERN INTERIOR COAL PROVINCE, ILLINOIS

By David C. Voelker

ABSTRACT

Hundreds of lakes have been formed as a result of surface mining in Area 35 of the Eastern Interior Coal Province in Illinois. This gazetteer reports physical and chemical data from 107 surface-mine lakes sampled from June through August 1983. Information collected includes location, morphology, and vertical profile measurements of water quality of the lakes.

The lakes range in size from 8.8 to 210 acres, and are from 4.0 to 92.0 feet deep. Maximum widths of the lakes range from 0.03 to 0.35 mile, and maximum lengths range from 0.27 to 3.08 miles.

Some lake waters were stratified, whereas others were completely mixed. Stratification was indicated through vertical-profile measurements of pH, temperature, dissolved-oxygen concentrations, and specific conductance. Some lakes had a strong thermocline and(or) apparent chemocline that acted as barriers between the epilimnion and hypolimnion.

Water quality differed widely among the lakes. Specific conductances ranged from 130 to 7,800 microsiemens per centimeter (at 25° Celsius). Specific conductances of 2,000 to 5,000 microsiemens per centimeter were most prevalent. The pH values ranged from 1.8 to 9.6 at the surface, whereas bottom measurements ranged from 2.0 to 8.5. Water temperatures near the surface ranged from 22.5° Celsius in June to 34.5° Celsius in August. Water temperatures near the bottom ranged from 6.5° to 24.5° Celsius. Dissolved-oxygen concentrations differed greatly among the lakes; concentrations near the surface ranged from 6.0 to 13.2 milligrams per liter and, near the bottom, from 0 to 9.0 milligrams per liter. Transparencies, measured with a Secchi disc, ranged from 0.3 to 35.4 feet.

INTRODUCTION

The Eastern Region of the Interior Coal Province has been divided into 11 study areas (fig. 1) based on hydrologic factors, location, and size. Area 35 includes about 4,500 square miles in southern Illinois and western Kentucky. The area includes all of Franklin, Hardin, Saline, and Williamson Counties, and parts of Gallatin, Hamilton, Jackson, Jefferson, Johnson, Massac, Pope, Washington, Perry, White, Marion, and Union Counties in Illinois, and parts of Crittenden and Livingston Counties in Kentucky (fig. 2). This report is confined to the Illinois part of the area. A similar study in Indiana encompassed parts of Areas 30, 32, and 33 (Bobo, 1979).

Area 35 (fig. 2) is one of the most active mining areas in Illinois. Several hundred lakes have been formed in Area 35 as a result of surface mining; however, the general water quality of these lakes is not known. Current regulations allow for some lakes to be formed even though the quality of future surface-mine lakes may not be predictable.

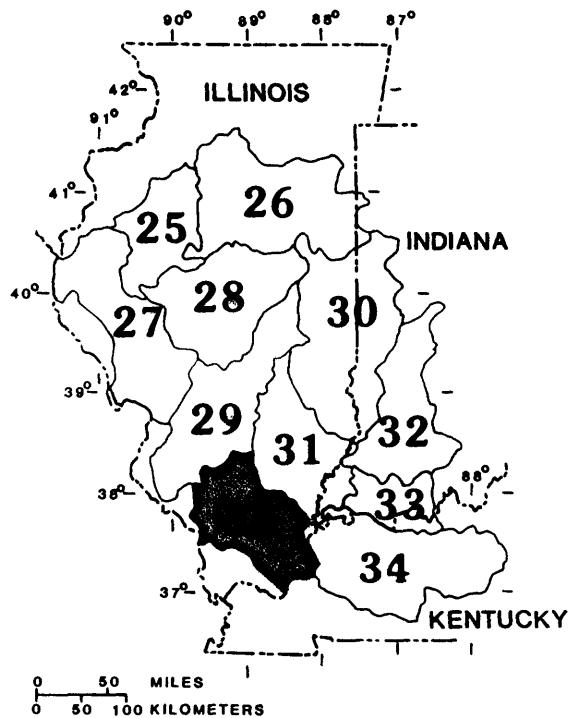


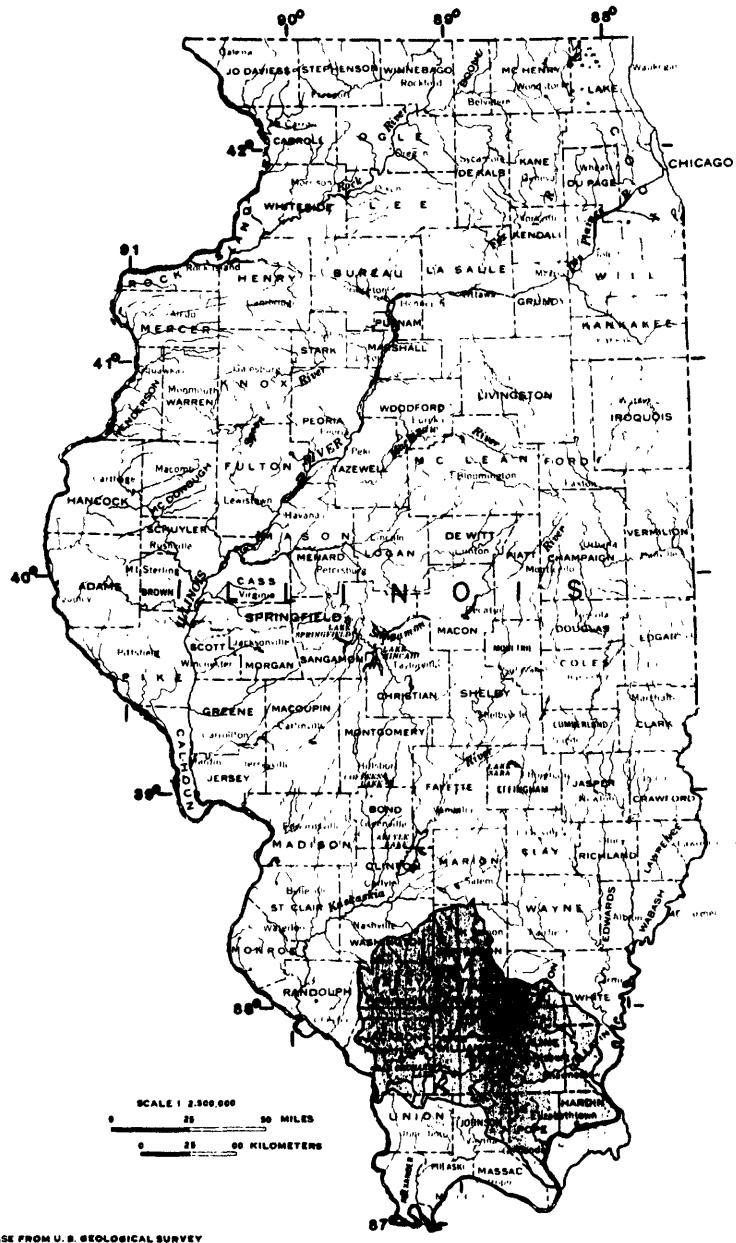
Figure 1.--Location of the 11 hydrologic study areas comprising the Eastern Interior Coal Province.

The purpose of this report is to document the location of and provide descriptive information for some of the lakes formed by surface coal mining in Area 35. This report includes morphological characteristics, transparency measurements, and vertical profiles of temperature, pH, dissolved-oxygen concentrations, and specific conductance for 107 lakes.

Special thanks are given to the coal-company personnel who provided information, aerial photographs, data, and access to lakes. Appreciation is also extended to the many individuals for access to privately owned lakes. A special thanks is given to Jon Williams of Rend Lake College for his outstanding efforts that contributed to the timely completion of the field reconnaissance.

#### METHODS

Water-quality meters were calibrated at the beginning of each day, and the calibration checked prior to each lake measurement. Length and width measurements were made with a range finder to verify and update maps and aerial photographs. Where necessary, topographic maps were modified to show the location of lakes that have been formed since publication of the maps. Lake depths were measured with an electronic depth finder. At the point of maximum lake depth, a vertical profile measurement of water quality was made with a submersible water-quality probe, and transparency was measured with a Secchi disc. Air temperature was recorded on the shore, and any additional information was recorded from visual observations of the site.



BASE FROM U. S. GEOLOGICAL SURVEY  
STATE BASE MAP, 1970

Figure 2.--Location of Area 35, Eastern Interior Coal Province,  
Illinois and Kentucky.

Field observations included apparent water color and shoreline vegetation. Water color was recorded based on visual observations by field personnel. Colors were listed as varying shades of green, brown, red, and black. Shoreline vegetation included the plants found along the lake shore that were broadly categorized as grasses, woods, and brush. Air temperature, in degrees Celsius, was measured at the lake shore using a mercury thermometer. The remarks section includes condition of the spoil materials, presence of an outlet or aquatic vegetation, and other miscellaneous information.

#### SELECTION AND LOCATIONS OF LAKES

The initial selection of lakes to be sampled was made by examining the 94 U.S. Geological Survey 7.5-minute quadrangle topographic maps covering Area 35 (fig. 3). The selections were refined through discussions with coal-company personnel in the area. A minimum size of approximately 10 acres was chosen because of the greater potential for fisheries and recreational uses of the larger lakes. Accessibility was also a factor in the selection process. Each of the lakes selected for study was sampled once during the period June 1983 through August 1983.

Lakes that were sampled are located within the boundaries of the 16 U.S. Geological Survey 7.5-minute quadrangle topographic maps listed in table 1. The topographic maps (figs. 4-19) show the sampled lakes as darkened areas and are numbered to correspond with the accompanying data tables (table 2). Some of the sampled lakes included in this report were not on the topographic maps because they were formed after the maps were prepared. An approximate location of these lakes, based on field observations and aerial photographs, has been sketched onto the topographic maps.

Table 1.--U.S. Geological Survey 7.5-minute quadrangle topographic maps included in this report

<u>Quadrangle</u>	<u>Figure</u>
Carrier Mills	4
Crab Orchard	5
De Soto	6
Du Quoin	7
Elkville	8
Equality	9
Harrisburg	10
Herrin	11
Marion	12
Murphysboro	13
Percy	14
Pinckneyville	15
Pyatts	16
Shawneetown	17
Vergennes	18
Willisville	19

Lake numbers were assigned sequentially from 1 to 107 by ascending station identification number. Station identification numbers follow the U.S. Geological Survey guidelines for 15-digit station numbers. These numbers include the latitude and longitude of the sample site followed by a two-digit sequence number. The station identification number identifies the sample location on the lake and is accurate to within approximately 100 feet.

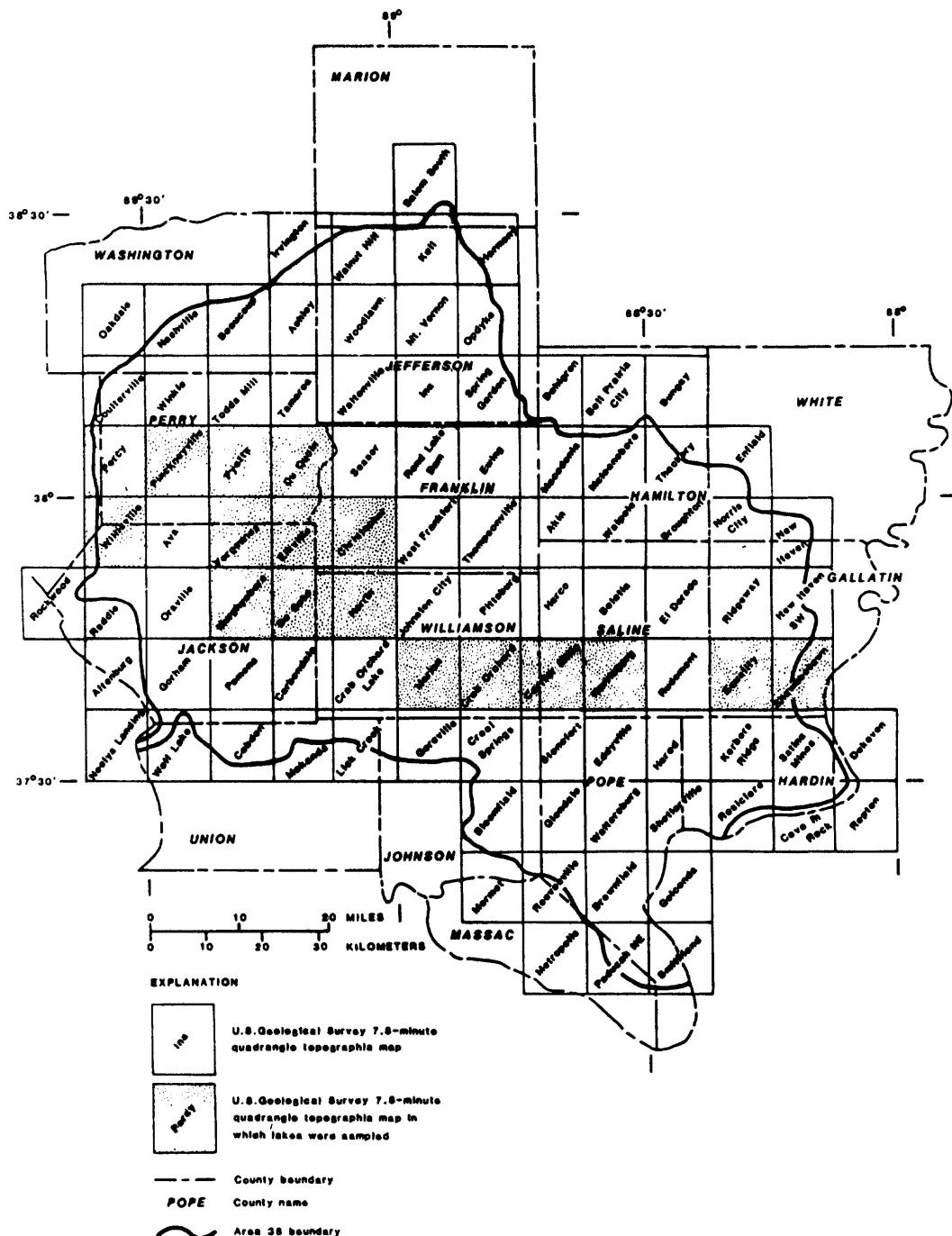


Figure 3.--U.S. Geological Survey 7.5-minute quadrangle topographic maps covering the study area in Illinois.

The term "lake lat-long," as found in the data tables, is the location of the lake as identified by the latitude and longitude of the lake's outlet. However, many surface-mine lakes do not have surface outlets and these are identified by the latitude and longitude of the southernmost point of the lake. Locations and sequence numbers are shown in figures 4 to 19.

#### MORPHOLOGY OF LAKES

Surface-mine lakes form as a result of several activities associated with the surface mining of coal. The majority of lakes are formed when an excavation is left to fill with water. These are often known as final-cut lakes. However, lakes can also form in depressions of the spoil materials as caused by subsidence, uneven backfill of excavations, or they may be created for use in various mining operations. Such operations include the impoundment of water for coal processing, and they may be used as settling basins for waste products of such processing.

Morphological measurements vary significantly with lake age. With improvements in mining equipment and techniques, as well as changes in surface-mining laws, reclamation procedures have produced definitive changes in the topography of surface-mined lands. Older lakes have steep, exposed, and irregular spoil banks while younger lakes have gently contoured and revegetated shorelines.

Morphological data include size, maximum depth, maximum width, maximum length, and some general remarks regarding the physical characteristics of the lake. Approximate corrections to the topographic maps in the form of changes to existing lakes, as well as the addition of new lakes, were made from field observations noted at the time of sampling.

Study lakes range in size from 8.8 to 210 acres and average 34.5 acres. Maximum depths range from 4.0 feet in lake 48, which was formed by surface subsidence of the spoil materials, to 92.0 feet in the final-cut part of lake 102. Maximum widths range from 0.03 to 0.35 mile. The lakes range from 0.27 to 3.08 miles in length.

#### WATER QUALITY OF LAKES

Vertical profiles of specific conductance, pH, temperature, and dissolved oxygen were made at the location of maximum depth in each of the lakes. Eh, oxidation-reduction potential, was also measured for some lakes. Profile measurements were made at 1- to 3.3-foot intervals from the surface to approximately 1 foot from the lake bottom. Several lakes were deeper than the length of the sensor cables and measurements were only made to depths the sensors could reach. Transparency of the lake water was measured with a Secchi disc.

Vertical profile measurements of pH, temperature, dissolved-oxygen concentration, and specific conductance indicated wide differences in general water quality between lakes. Some lake waters had a strong thermocline and(or) apparent chemocline (as evidenced by temperature and specific conductance measurements) which acted as barriers between upper, circulating water masses and deeper, relatively stagnant waters. Many lakes had no such stratification but instead were well mixed. Complete mixing was found primarily, but not exclusively, in the shallower lakes.

#### Specific Conductance

Specific conductances ranged from 130 microsiemens per centimeter at 25°C ( $\mu\text{S}/\text{cm}$ ) in lake 101 to 7,800  $\mu\text{S}/\text{cm}$  in lake 80. Specific conductance usually increased with depth, with a maximum increase of 5,380  $\mu\text{S}/\text{cm}$  in lake 80, but remained virtually unchanged between the surface and bottom layers of several lakes. Most lakes had specific conductances in the range of 2,000 to 5,000  $\mu\text{S}/\text{cm}$ . The specific conductance data indicates that dissolved-solids concentrations in most of the lakes are relatively high. Snoeyink and Jenkins (1980) indicate that measurements of specific conductance are in direct correlation to concentrations of dissolved solids in lakes. Specific conductance is a measure of the ability of a solution to conduct a current. This ability is attributable to the ions in solution, or total dissolved solids.

#### pH

Values of pH near the surface ranged from 1.8 in lake 85 to 9.6 in lake 9. Values of pH near the bottom ranged from 2.0 in lake 85 to 8.5 in lake 47. Generally, pH decreased with depth, although in lakes 7, 19, 36, 47, and 85, pH increased with depth.

#### Temperature

Water temperatures near the surface ranged from 22.5° to 34.5°C. Surface temperatures were related to the date of sampling; the lowest values were recorded at the start of the reconnaissance in June, and successively higher values were measured during subsequent months. Most lakes were thermally stratified and had a definite thermocline, although the slope of the thermal gradient varied between lakes. Temperatures in the deepest parts of the lakes ranged from a low of 6°C in a deep, relatively stagnant lake, to the upper teens in shallower lakes in which water circulation occurs.

#### Dissolved Oxygen

Dissolved-oxygen concentrations varied greatly between lakes. Surface measurements of dissolved oxygen ranged from 6.0 to 13.2 mg/L (milligrams per liter). Dissolved-oxygen concentrations generally decreased with depth, although several lakes were supersaturated with dissolved oxygen at depth. Many lakes with well defined thermoclines and(or) chemoclines had dissolved-oxygen concentrations that increased greatly in the metalimnion, and then decreased sharply to concentrations at or near zero in the hypolimnion. In lakes 23, 30, 32, 43, 90, and 95, dissolved-oxygen concentrations recorded in the metalimnion exceeded 18 mg/L. In lakes 34, 36, 66, and 71, dissolved-oxygen values were unexplainably high, and no verification was made at that time, other than checking the instrument used and then repeating the measurement. In lake 66, both the dissolved oxygen and pH probes failed, and the water-quality meter could not be recalibrated upon its return to the surface indicating a possible instrument problem. In the remaining three lakes, however, a calibration check was made on the water-quality meter, and only very minor (0.1-0.2 mg/L)

or no adjustments were needed indicating that the meter was not malfunctioning. However, the high dissolved-oxygen values may have been the result of possible chemical interference with the dissolved-oxygen probe. Dissolved-oxygen values above saturation are common in biologically productive waters; however, the values measured in lakes 34, 36, 66, and 71 are unexplained at this time. Additional sampling of these lakes during the summer of 1984 could not verify the existence of dissolved-oxygen concentrations in excess of 20 mg/L, and data indicating such values have been omitted from this report.

#### Oxidation-Reduction Potential

Eh, oxidation-reduction potential, profiles were made for nine lakes. All showed an Eh of 113 to 251 mv (millivolts) near the surface. Two sites (lakes 58 and 72) remained relatively unchanged in Eh between the surface and bottom. The two sites sampled on lake 20 had surface Eh's of 236 and 209 mv, and bottom Eh's of 12 and 99 mv, respectively. Five lakes (60, 62, 67, 101, and 102) showed an Eh of -152 to -292 mv at their deepest point.

#### Water-Transparency and Color

The minimum Secchi disc transparency measurement was 0.3 foot in lake 105, and the maximum was 35.4 feet in lake 16. Average transparency of the lakes was 8.6 feet. It should be noted that variations in this measurement can be related to eyesight of the viewer and the contrast between the disc and surrounding water (Cole, 1975).

More than 80 percent of those lakes where color was recorded were listed as some shade of green. The remaining lakes were recorded as being brown in color with the exception of one black lake (45) and one red lake (85). A wide variety of spoil material characteristics were represented near or at the lakes sampled. Many lakes, especially those of larger size, had areas with both very steep and gently sloping spoil materials. Older lakes often had a very irregular shoreline while younger lakes had more even, straight shorelines. Vegetation on the spoil materials consisted primarily of grasses and wooded areas. Most lakes are apparently closed basins as only 25 were observed to have surface-water outlets, and surface-water inlets were observed only on two lakes.

#### SUMMARY

Surface mining of coal is of major importance in Area 35, Eastern Interior Coal Province, in Illinois. As a result of this method of mining, hundreds of lakes have been formed. The majority of these lakes are the result of excavations filling with water, but others are also formed where subsidence or depressions form in spoil materials on reclaimed lands. A few lakes are created for use in the mining operations.

During the period June 1983 to August 1983, 107 of these lakes were visited to collect physical and chemical field data. Information collected includes location, morphology, and vertical profile measurements of specific conductance, pH, temperature, dissolved oxygen, and oxidation-reduction potential.

Lakes that were sampled range in size from 8.8 to 210 acres, and are from 4.0 to 92.0 feet deep. Maximum widths range from 0.03 to 0.35 mile, and maximum lengths range from 0.27 to 3.08 miles.

Some lakes were stratified, whereas others were completely mixed. Stratification was indicated through vertical-profile measurements of the pH, temperature, dissolved-oxygen concentrations, and specific conductance. Some stratified lakes had a strong thermocline and(or) apparent chemocline that acted as barriers between the epilimnion and hypolimnion.

General water quality differed widely among the lakes. Specific conductances ranged from 130 to 7,800  $\mu\text{S}/\text{cm}$ . The most prevalent range of specific conductance was between 2,000 and 5,000  $\mu\text{S}/\text{cm}$ . pH of the surface waters ranged from 1.8 to 9.6, whereas bottom measurements ranged from 2.0 to 8.5. Water temperatures near the surface ranged from 22.5° Celsius in June to 34.5° Celsius in August. Bottom temperatures ranged from 6.5° to 24.5° Celsius. Dissolved-oxygen concentrations ranged from 6.0 to 13.2 milligrams per liter (mg/L) at the surface, and from 0 to 9.0 mg/L at the bottom. Transparency of lake waters ranged from 0.3 to 35.4 feet.

This reconnaissance is only an initial attempt to classify surface-mine lakes. Additional studies, either through continued sampling programs or data compilation and analysis, are required to further define the quality of surface-mine lakes. Studies could be made to compare how aging, morphology, or possibly surface-mining techniques may affect a lake's water quality. With such information, government agencies and coal-mining companies could more accurately predict changes in quality of future surface-mine lakes.

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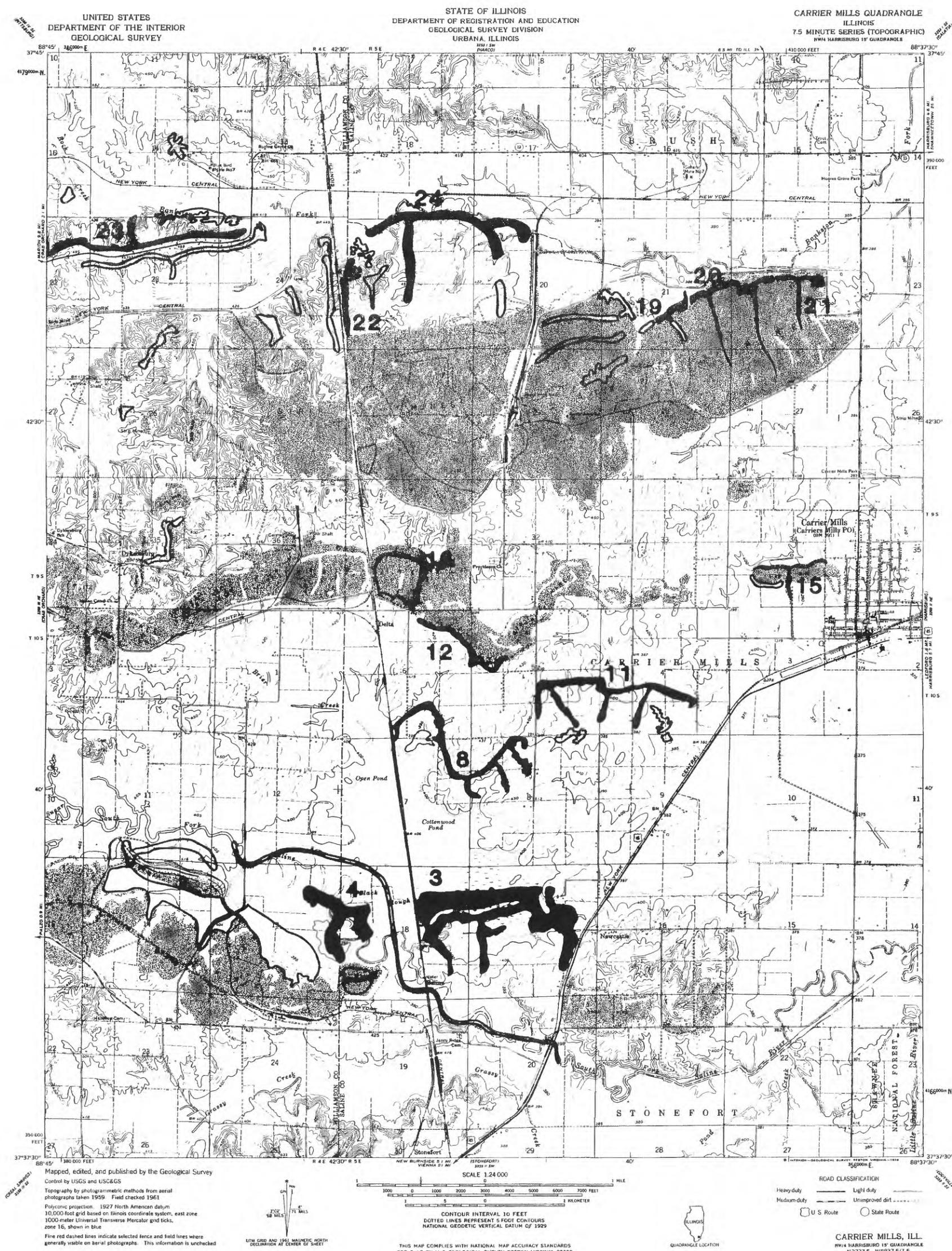
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**Figures 4-19; Table 2**

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#### **EXPLANATION**

-  Sampled lakes  
 Changes in strip mine area  
12 Lake number

Figure 4.--Surface-mine lakes sampled in the Carrier Mills Quadrangle.

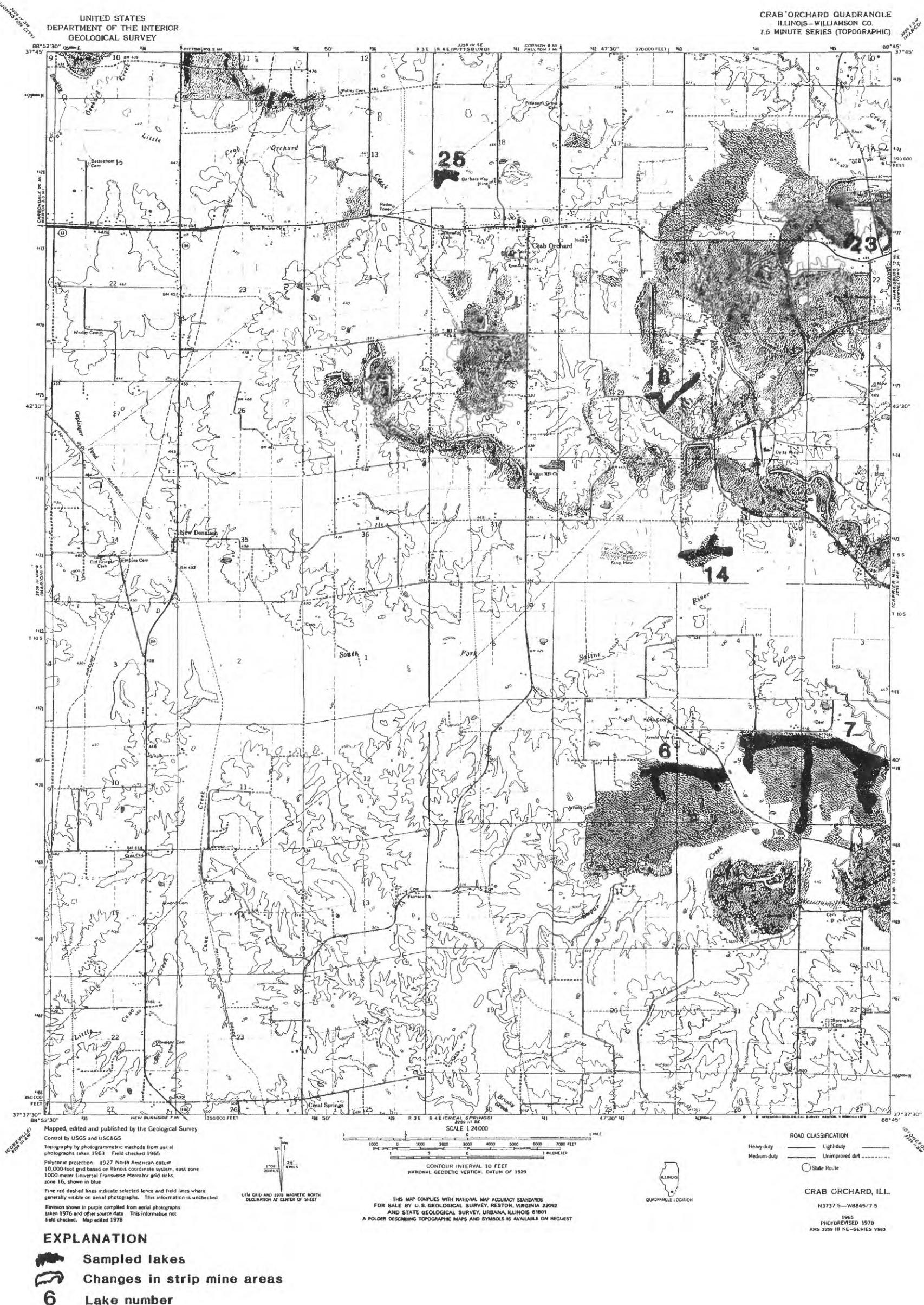


Figure 5.--Surface-mine lakes sampled in the Crab Orchard Quadrangle.

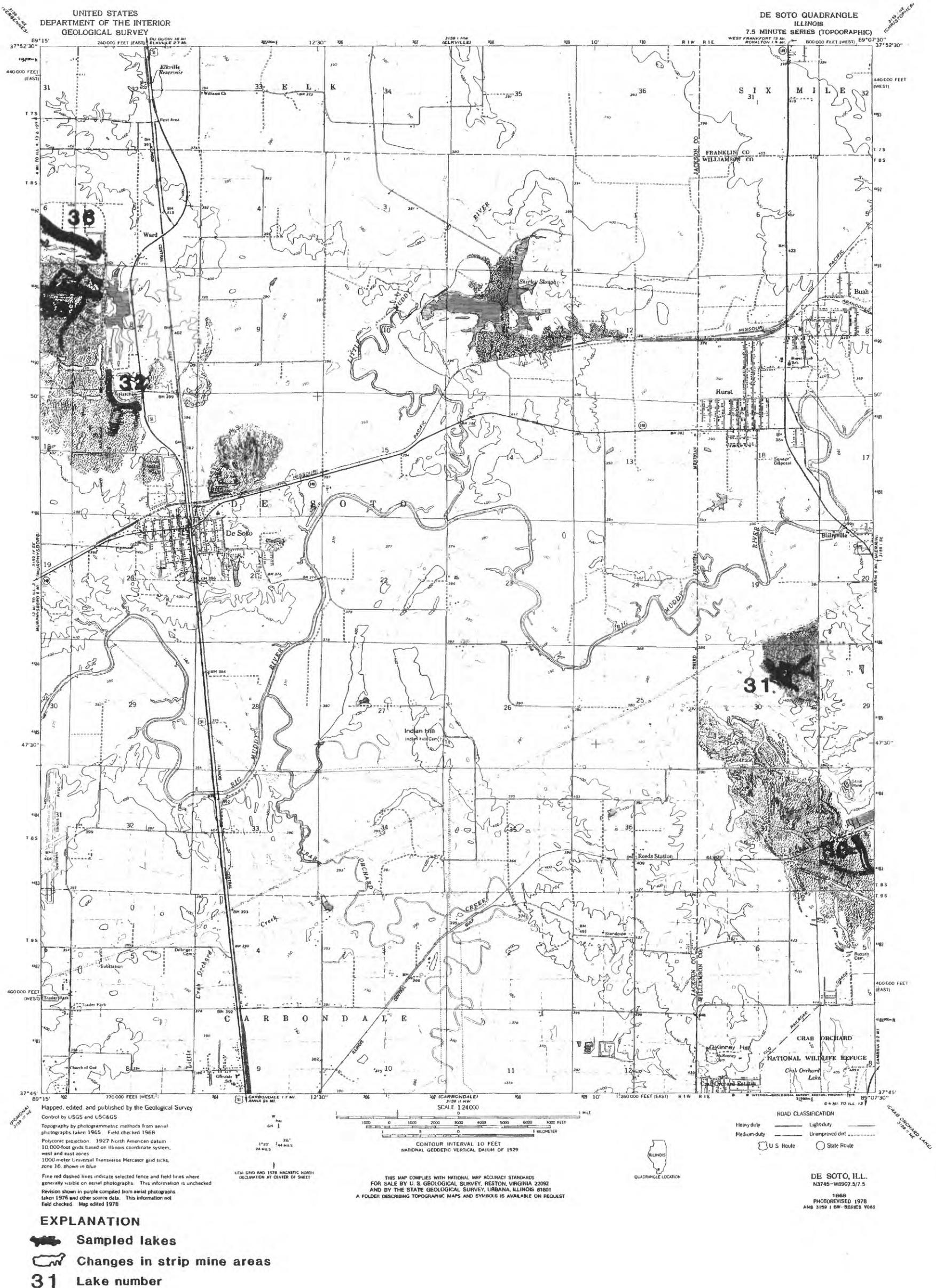


Figure 6.--Surface-mine lakes sampled in the De Soto Quadrangle.

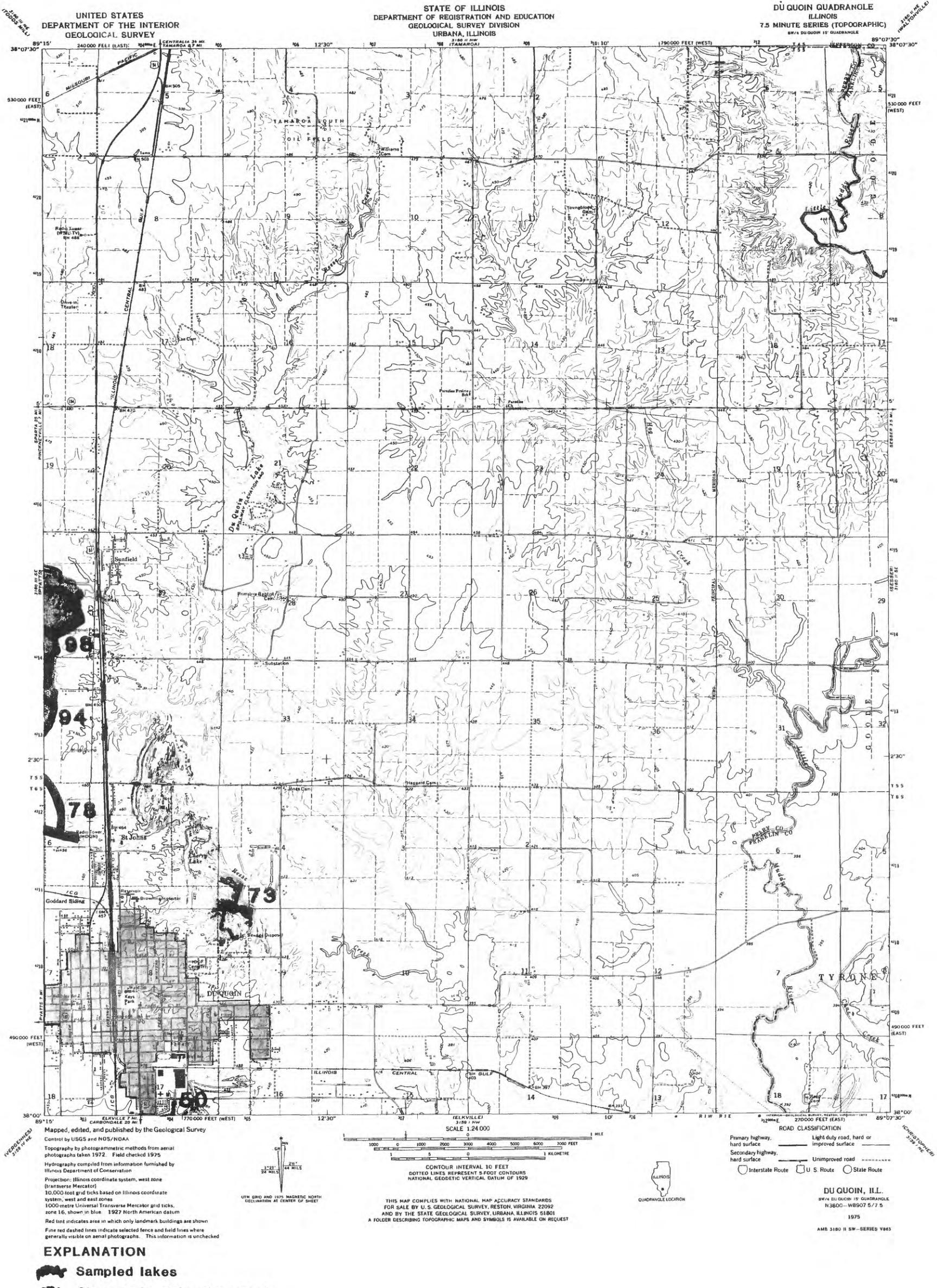
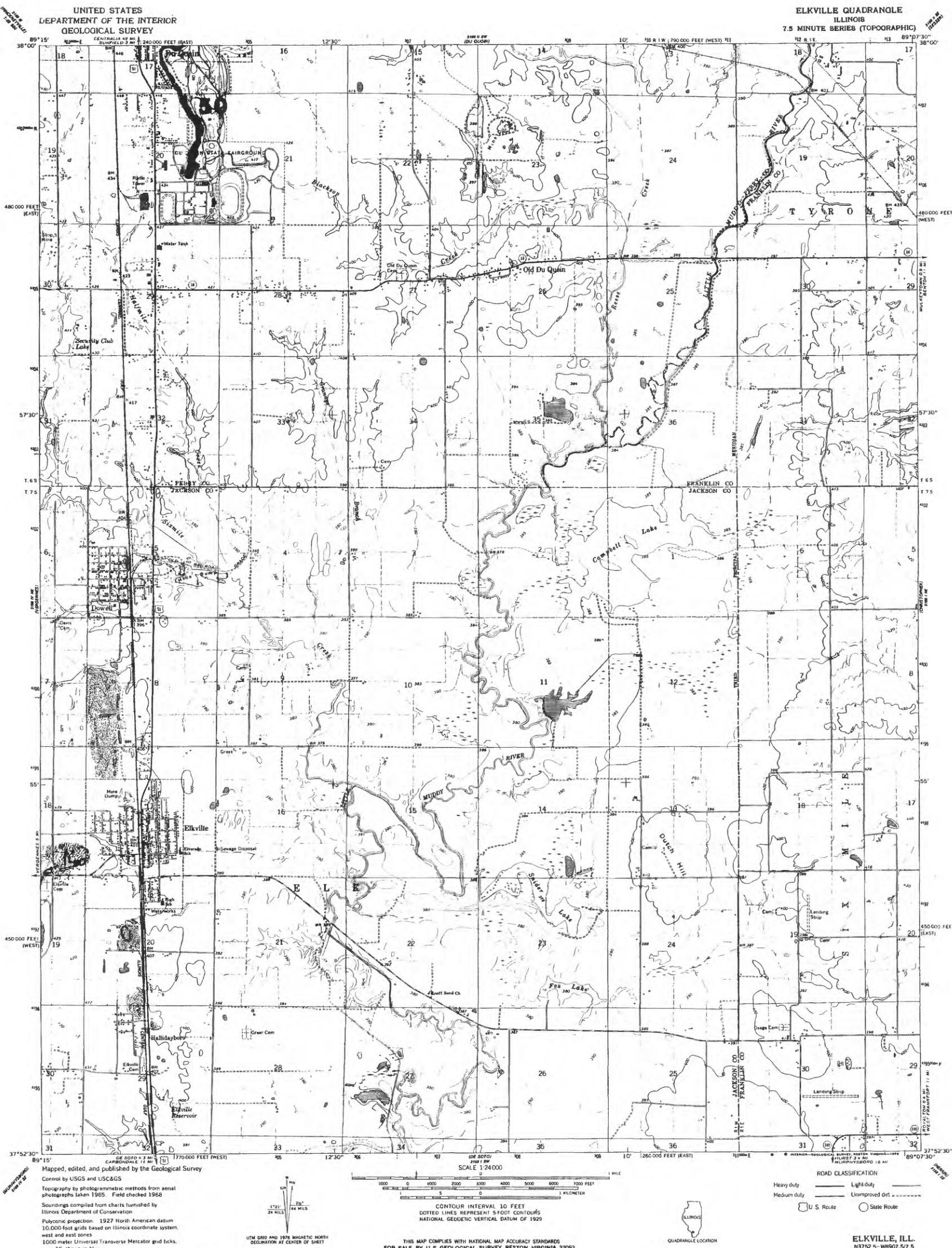


Figure 7.--Surface-mine lakes sampled in the Du Quoin Quadrangle.



## **EXPLANATION**

- Sampled lakes
  - Changes in strip mine areas
  - 50 Lake number

Figure 8.--Surface-mine lakes sampled in the Elkville Quadrangle.

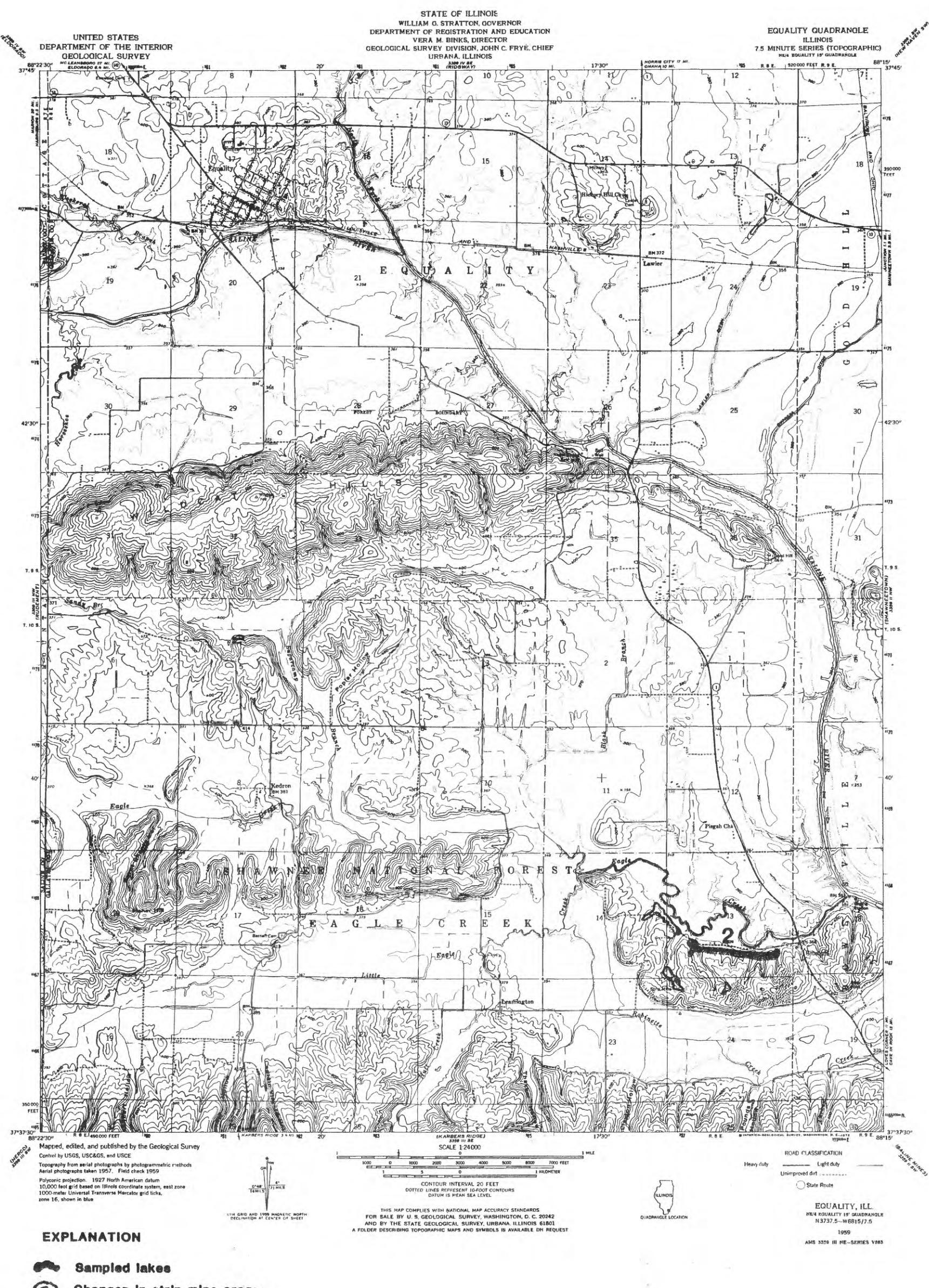
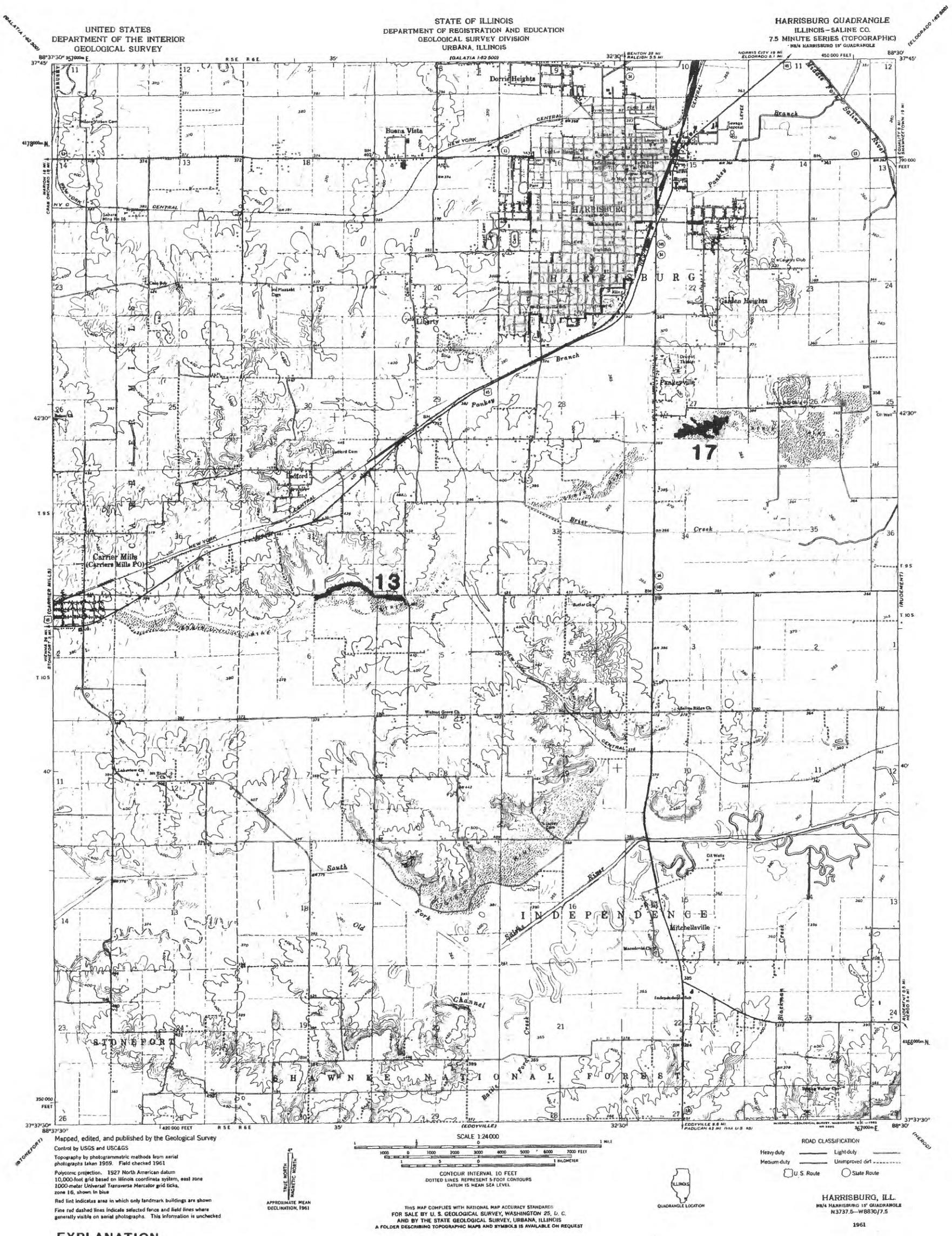


Figure 9.--Surface-mine lakes sampled in the Equality Quadrangle.



## **EXPLANATION**

-  Sampled lakes
  -  Changes in strip mine areas

**13** Lake number

Figure 10.--Surface-mine lakes sampled in the Harrisburg Quadrangle.

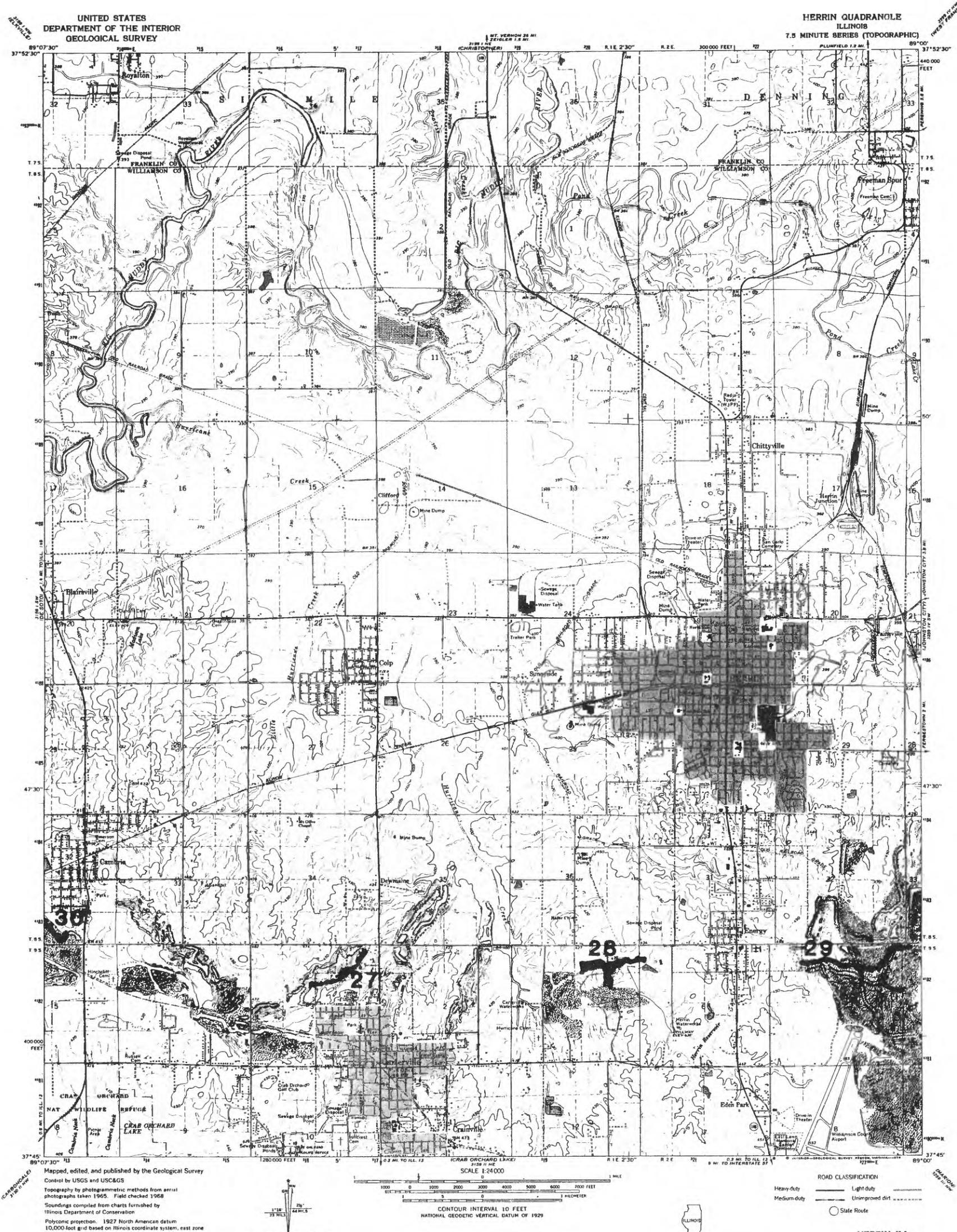
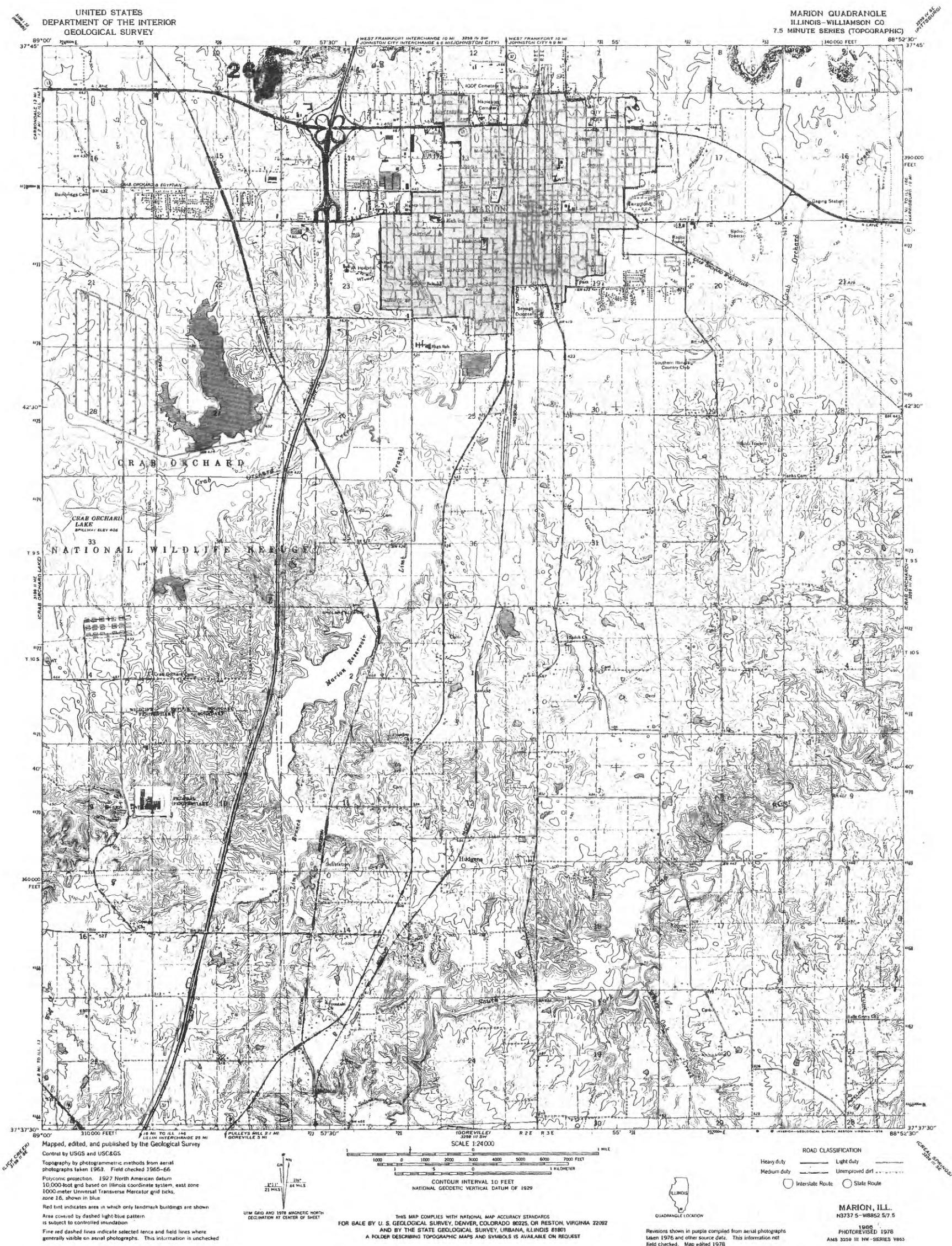


Figure 11.--Surface-mine lakes sampled in the Herrin Quadrangle.



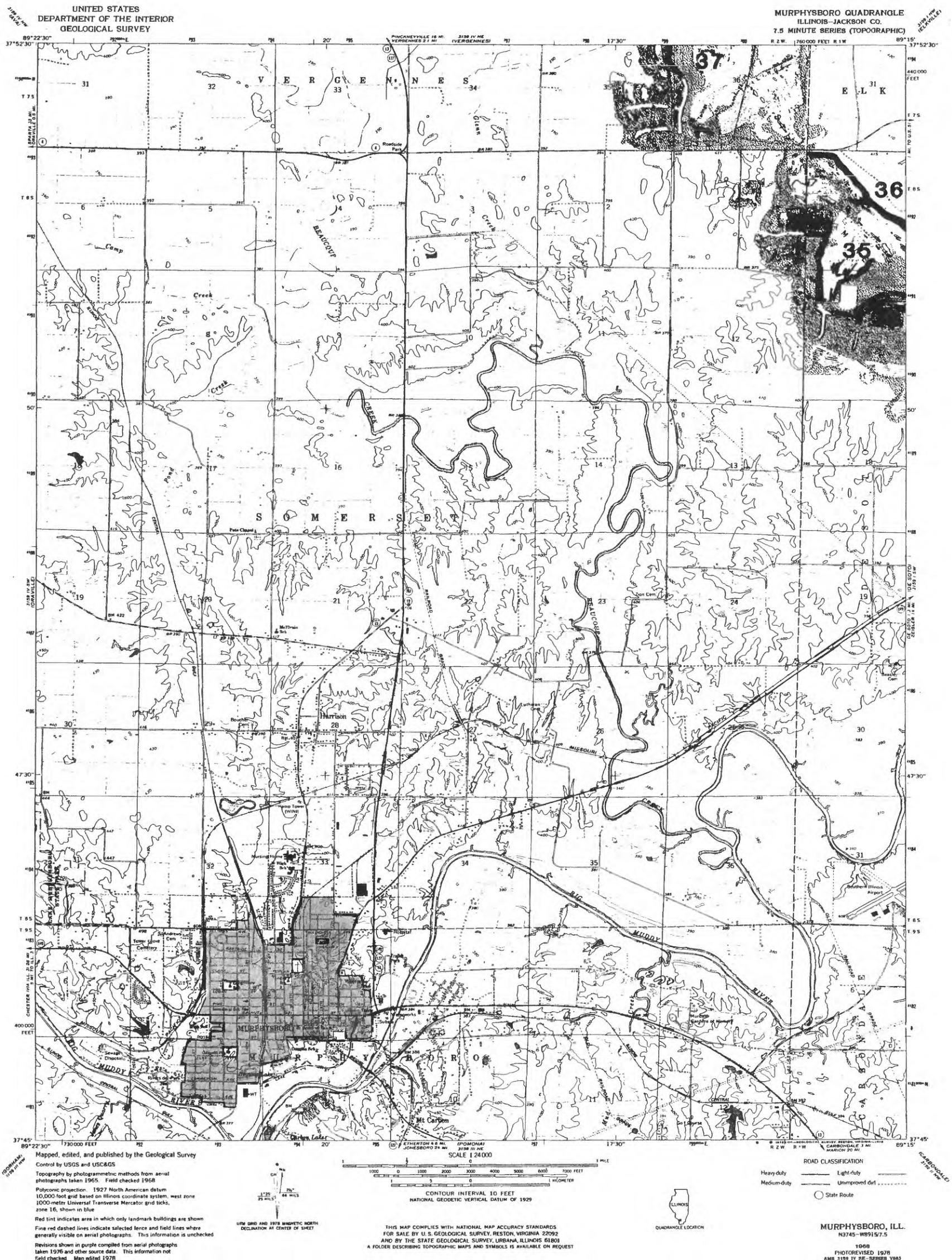
## **EXPLANATION**

### **Sampled lakes**



### **Changes in strip mine areas**

**26** Lake number



## **EXPLANATION**

### **Sampled Lakes**

#### **Changes in strip mine areas**

### **Changes in state**

Figure 13 --Surface-mine lakes sampled in the Murphysboro Quadrangle.

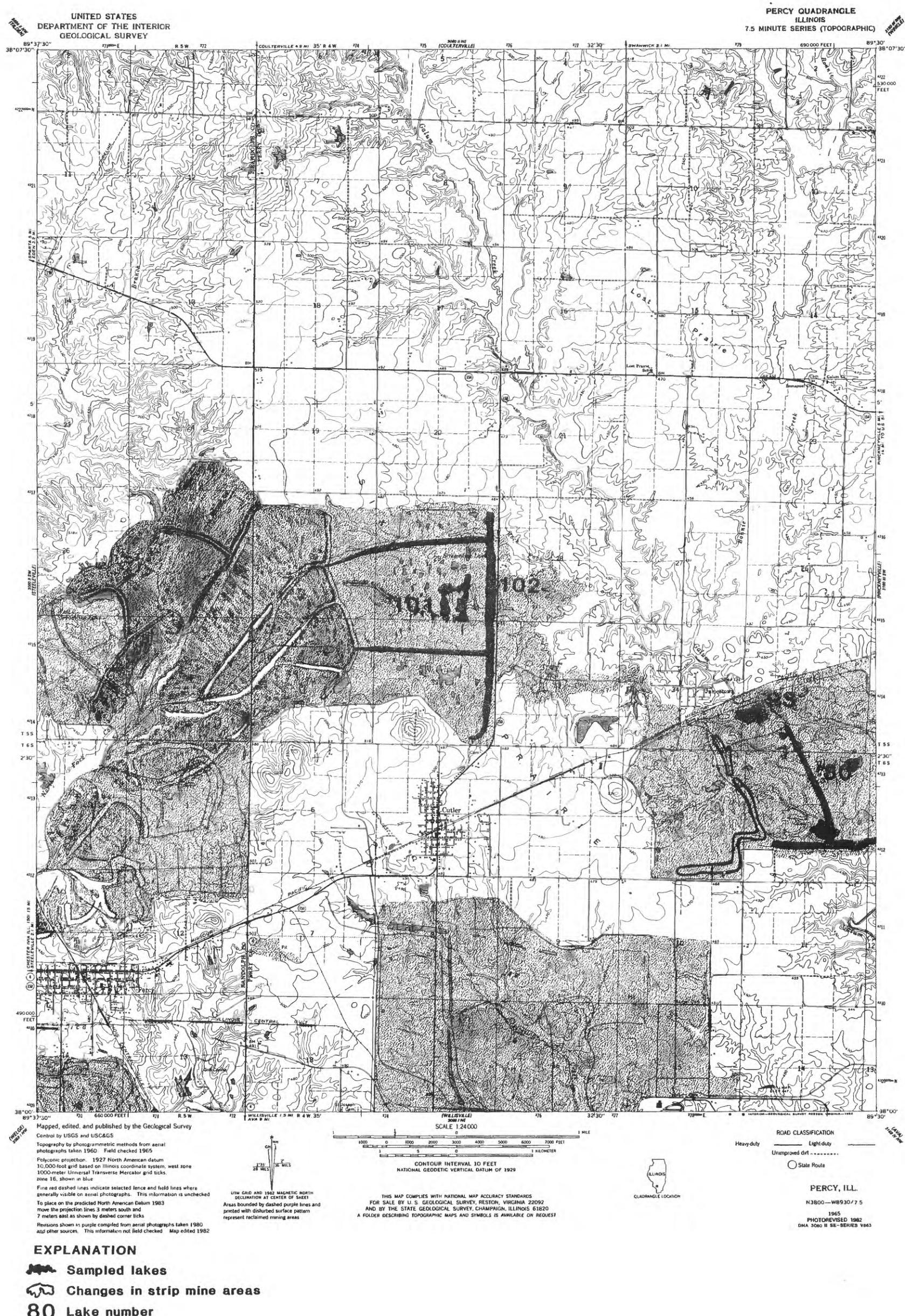


Figure 14.--Surface-mine lakes sampled in the Percy Quadrangle.

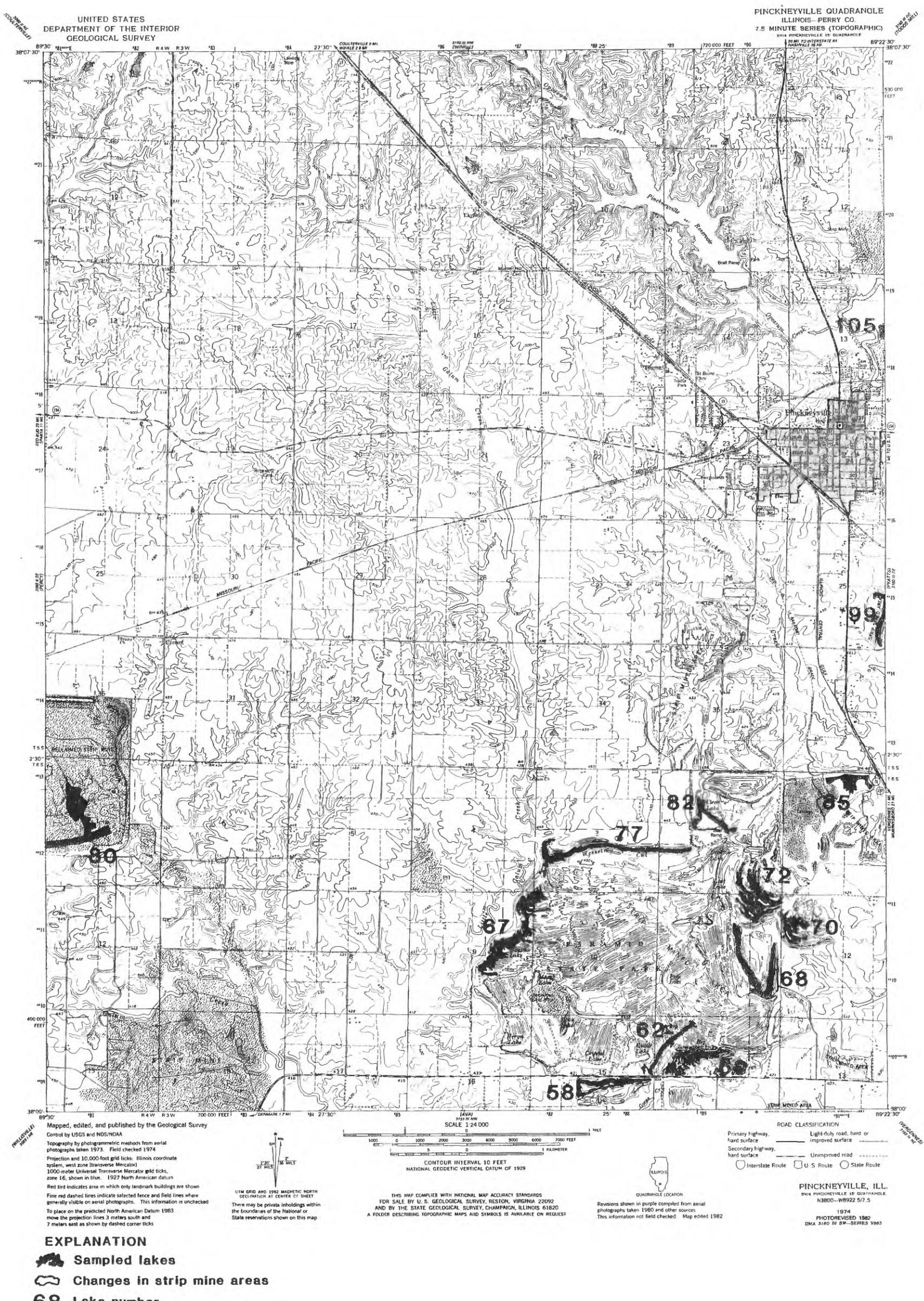


Figure 15.--Surface-mine lakes sampled in the Pinckneyville Quadrangle.

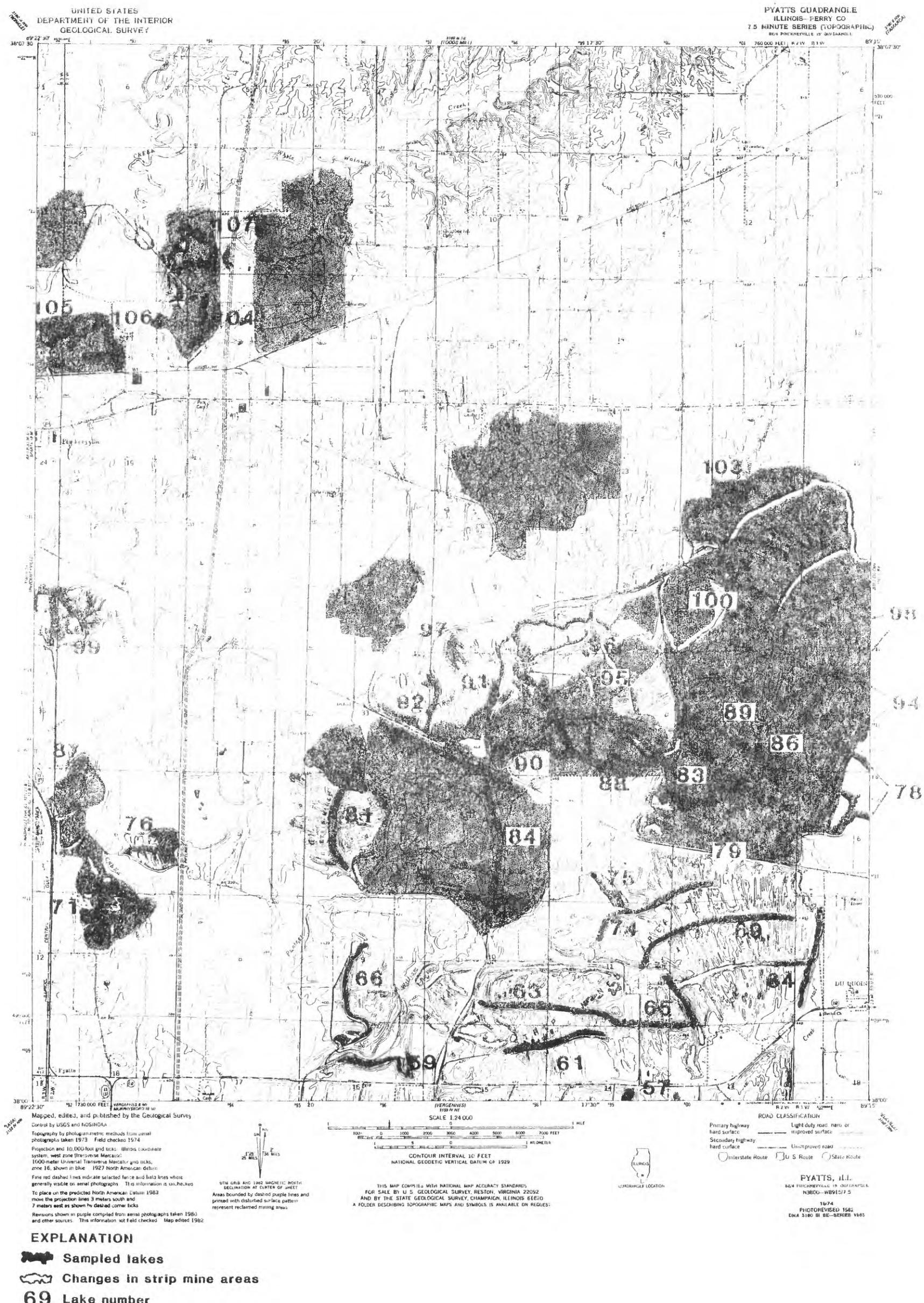


Figure 16.--Surface-mine lakes sampled in the Pyatts Quadrangle.



Figure 17.--Surface-mine lakes sampled in the Shawneetown Quadrangle.



## EXPLANATION

- Sampled lakes
  - Changes in strip mine area
  - 42 Lake number

Figure 18.--Surface-mine lakes sampled in the Vergennes Quadrangle.

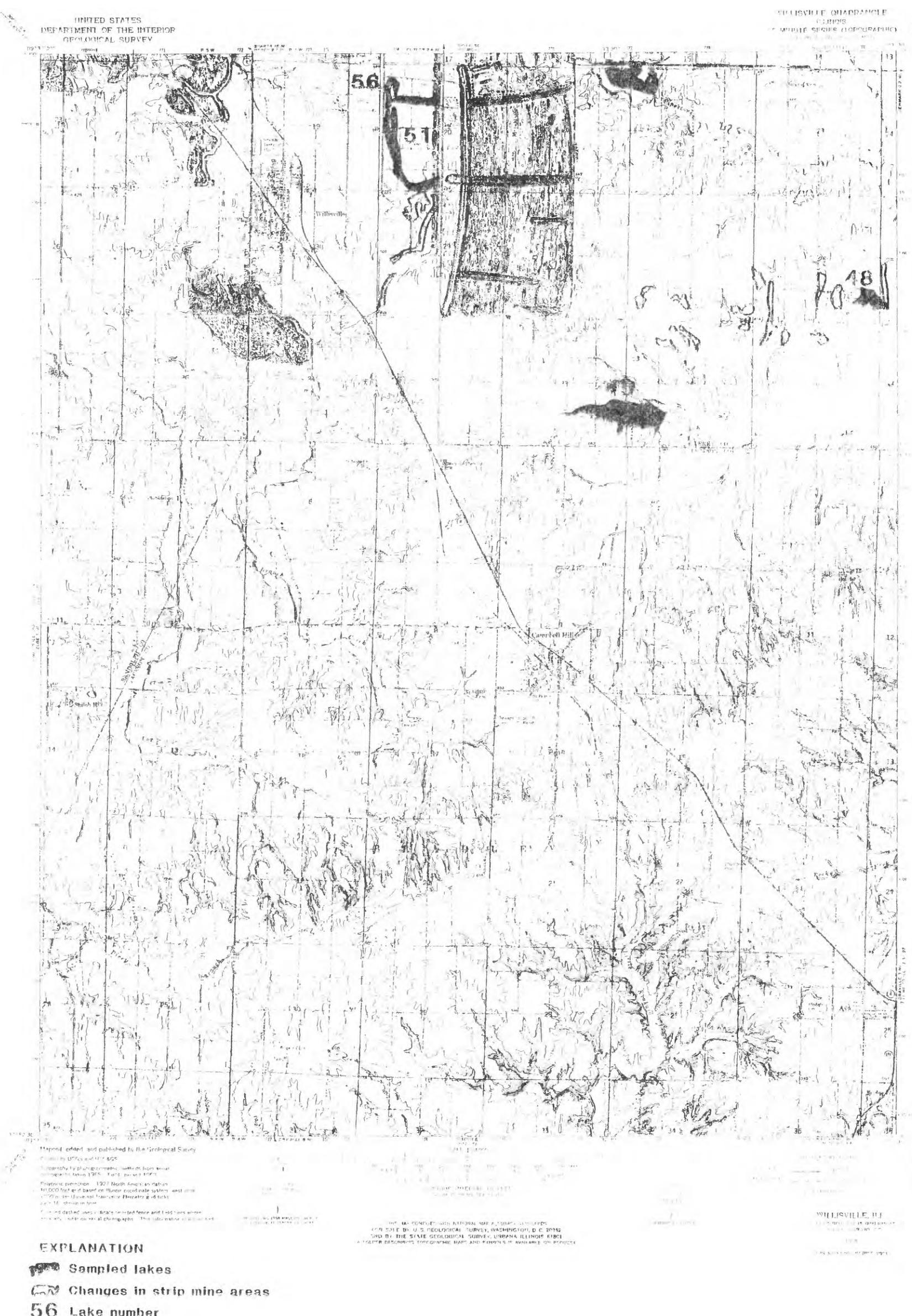


Figure 19.--Surface-mine lakes sampled in the Willisville Quadrangle.

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35

## LAKE NO. 1 - SHAWNEETOWN QUADRANGLE (FIG. 17)

STATION ID:	373809088142601						
LAKE LAT-LONG:	373809 0881411						
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR GIBSONIA, IL						
LAKE SIZE (ACRES):	19.2	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	66.0						
MAXIMUM WIDTH (MILES):	0.10						
MAXIMUM LENGTH (MILES):	0.38						
TRANSPARENCY (SECCHI DISC) (FEET):	6.6						
COLOR:	DARK GREEN						
VEGETATION:	GRASSES						
AIR TEMPERATURE (DEG C):	33.0						
REMARKS:	GENTLY SLOPING SPOIL. OUTLET ON EAST END OF LAKE.						
June							
	16...	1000	.00	1100	8.2	26.0	8.4
	16...	1001	3.30	1110	8.2	25.5	8.4
	16...	1002	6.60	1230	7.9	24.5	8.9
	16...	1003	9.80	1620	7.5	20.0	9.2
	16...	1004	13.1	1930	7.3	15.0	7.5
	16...	1005	16.4	2080	7.0	13.0	5.8
	16...	1006	19.7	3290	6.5	12.0	2.7
	16...	1007	23.0	3420	6.2	11.5	1.4
	16...	1008	26.2	3470	6.3	11.5	1.1
	16...	1009	29.5	3540	6.3	11.5	1.0
	16...	1010	32.8	4210	6.3	11.0	1.0
	16...	1011	36.1	4220	6.3	11.0	1.0
	16...	1012	39.4	4410	6.3	11.0	1.0
	16...	1013	42.6	4520	6.3	11.0	.9
	16...	1014	45.9	4580	6.3	11.0	.9
	16...	1015	49.2	4620	6.3	11.0	.9
	16...	1016	52.5	4770	6.3	11.0	.9
	16...	1017	55.8	4880	6.3	11.5	.9
	16...	1018	59.0	4980	6.3	11.5	.9
	16...	1019	62.3	4990	6.3	12.0	.9
	16...	1020	65.6	5010	6.4	12.0	.9

## LAKE NO. 2 - EQUALITY QUADRANGLE (FIG. 9)

STATION ID:	373847088163301						
LAKE LAT-LONG:	373843 0881600						
LAKE NAME:	UNNAMED LAKE NO. 2 AT GIBSONIA, IL						
LAKE SIZE (ACRES):	20.2	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	46.0						
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	0.78						
TRANSPARENCY (SECCHI DISC) (FEET):	6.9						
COLOR:	DARK GREEN						
VEGETATION:	GRASSES						
AIR TEMPERATURE (DEG C):	22.0						
June							
	16...	0840	.00	2050	7.2	25.5	8.3
	16...	0841	3.20	2090	7.3	25.5	8.1
	16...	0842	6.60	2100	7.2	25.5	8.0
	16...	0843	9.80	2380	6.8	20.5	10.4
	16...	0844	13.1	2500	6.8	15.5	10.9
	16...	0845	16.4	2540	6.7	13.5	10.2
	16...	0846	19.7	2570	6.7	12.0	9.3
	16...	0847	23.0	2630	6.7	11.0	8.1
	16...	0848	26.2	2740	6.6	11.0	6.4
	16...	0849	29.5	2760	6.6	10.5	5.8
	16...	0850	32.8	2760	6.6	10.0	4.7
	16...	0851	36.1	2780	6.6	9.5	4.1
	16...	0852	39.4	2820	6.5	9.5	3.6
	16...	0853	42.6	2850	6.5	9.5	2.6

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 3 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	373907088412701	WATER-QUALITY DATA						
LAKE LAT-LONG:	373844 0884133	Date	Time	Sam- pling depth (feet)	Spa- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR STONEFORT, IL							
LAKE SIZE (ACRES):	200.							
MAXIMUM DEPTH (FEET):	59.5							
MAXIMUM WIDTH (MILES):	0.21							
MAXIMUM LENGTH (MILES):	1.95							
TRANSPARENCY (SECCHI DISC) (FEET):	7.4							
COLOR:	GREEN							
VEGETATION:	GRASSES, WOODS							
June								
	13...	1405	.00	1510	6.6	27.5	8.3	
	13...	1406	3.00	1520	6.4	27.0	8.2	
	13...	1407	5.00	1510	6.2	27.0	8.1	
	13...	1408	7.00	1510	6.1	26.5	8.0	
	13...	1409	9.00	1510	6.0	26.0	7.7	
	13...	1410	11.0	1510	5.7	24.5	7.9	
	13...	1411	13.0	1510	5.4	23.5	7.8	
	13...	1412	15.0	1580	4.8	21.5	8.2	
	13...	1413	17.0	1790	4.3	18.0	10.1	
	13...	1414	19.0	1810	4.1	15.5	10.1	
	13...	1415	21.0	1810	4.1	14.0	10.0	
	13...	1416	23.0	1830	4.0	13.0	9.9	
	13...	1417	25.0	1850	3.9	12.5	9.7	
	13...	1418	27.0	1890	3.8	12.0	9.3	
	13...	1419	29.0	1930	3.7	11.5	8.5	
	13...	1420	31.0	2060	3.5	11.0	5.9	
	13...	1421	33.0	2870	3.5	10.0	3.8	
	13...	1422	35.0	3290	3.0	9.5	4.4	
	13...	1423	37.0	3380	2.9	9.0	3.9	
	13...	1424	39.0	3400	2.9	8.5	3.4	
	13...	1425	41.0	3410	3.0	8.0	1.8	
	13...	1426	43.0	3420	3.0	7.5	1.6	
	13...	1427	45.0	3440	3.0	7.5	.2	
	13...	1428	47.0	3440	3.0	7.5	.0	
	13...	1429	49.0	3440	3.0	7.5	.0	
	13...	1430	51.0	3440	3.0	7.5	.0	
	13...	1431	53.0	3430	3.0	7.0	.0	
	13...	1432	55.0	3440	3.1	7.0	.0	
	13...	1433	57.0	3450	3.3	7.0	.0	
	13...	1434	59.0	3450	3.6	7.0	.0	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 4 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	373910088422401							
LAKE LAT-LONG:	373849 0884229							
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR STONEFORT, IL							
LAKE SIZE (ACRES):	56.3							
MAXIMUM DEPTH (FEET):	61.0							
MAXIMUM WIDTH (MILES):	0.09							
MAXIMUM LENGTH (MILES):	0.67							
TRANSPARENCY (SECCHI DISC) (FEET):	13.9							
COLOR:	DARK GREEN							
REMARKS:	SEDIMENT ENTERING WEST END OF LAKE.							
		June						
		14...	1120	.00	2800	6.9	25.0	7.8
		14...	1121	3.30	2820	7.0	25.0	7.8
		14...	1122	6.60	2820	7.1	25.0	7.7
		14...	1123	9.80	2820	7.3	25.0	7.7
		14...	1124	13.1	2950	7.7	24.5	7.8
		14...	1125	16.4	3100	6.8	21.0	7.4
		14...	1126	19.7	3660	6.2	17.5	3.0
		14...	1127	23.0	4250	6.4	14.0	1.5
		14...	1128	26.2	4570	6.6	12.5	1.4
		14...	1129	29.5	4680	6.7	12.0	1.3
		14...	1130	32.8	4830	6.6	11.5	1.3
		14...	1131	36.1	4920	6.5	11.5	1.2
		14...	1132	39.4	5030	6.5	11.5	1.2
		14...	1133	42.6	5140	6.3	12.0	1.2
		14...	1134	45.9	5240	6.2	12.0	1.2
		14...	1135	49.2	5310	6.2	12.5	1.2
		14...	1136	52.5	5380	6.1	12.5	1.1
		14...	1137	55.8	5460	6.1	12.5	1.1
		14...	1138	59.0	4900	7.4	12.5	1.1

## LAKE NO. 5 - SHAWNEETOWN QUADRANGLE (FIG. 17)

STATION ID:	373921088142001							
LAKE LAT-LONG:	373912 0881421							
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR SHAWNEETOWN, IL							
LAKE SIZE (ACRES):	19.7							
MAXIMUM DEPTH (FEET):	56.0							
MAXIMUM WIDTH (MILES):	0.09							
MAXIMUM LENGTH (MILES):	0.42							
TRANSPARENCY (SECCHI DISC) (FEET):	10.2							
COLOR:	DARK GREEN							
VEGETATION:	WOODS, MARSHES							
REMARKS:	VERY IRREGULAR SHORELINE. MUCH ALGAE AND AQUATIC WEEDS.							
		June						
		16...	1147	.00	2750	7.8	27.0	7.7
		16...	1148	3.30	2760	7.8	26.5	7.9
		16...	1149	6.60	2760	7.8	26.0	7.8
		16...	1150	9.80	3030	6.8	25.5	9.1
		16...	1151	13.1	3110	6.8	15.5	6.5
		16...	1152	16.4	3160	6.9	13.0	5.2
		16...	1153	19.7	3210	6.9	12.0	3.6
		16...	1154	23.0	3280	6.8	11.5	2.1
		16...	1155	26.2	3350	6.8	11.5	1.3
		16...	1156	29.5	3580	6.8	11.5	.9
		16...	1157	32.8	3660	6.8	11.5	.9
		16...	1158	36.1	3720	6.8	11.5	.9
		16...	1159	39.4	3750	6.7	11.5	.9
		16...	1200	42.6	3760	6.7	11.5	.9
		16...	1201	45.9	3760	6.7	11.0	.9
		16...	1202	49.2	3780	6.8	11.0	.9
		16...	1203	52.5	3820	6.8	11.0	.9
		16...	1204	54.1	3860	6.9	10.5	.9

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 6 - CRAB ORCHARD QUADRANGLE (FIG. 5)

STATION ID:	373955088470701						
LAKE LAT-LONG:	373956 0884634						
LAKE NAME:	UNNAMED LAKE NO. 4 NEAR STONEFORT, IL						
LAKE SIZE (ACRES):	35.7	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu\text{s}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	49.0						
MAXIMUM WIDTH (MILES):	0.09	June					
MAXIMUM LENGTH (MILES):	0.72	10...	1300	.00	2400	7.3	26.0
		10...	1301	3.30	2400	7.3	25.5
TRANSPARENCY (SECCHI DISC) (FEET):	4.9	10...	1302	6.60	2670	6.4	21.5
		10...	1303	9.80	2510	6.4	15.0
		10...	1304	13.1	2490	6.3	12.0
VEGETATION:	GRASSES	10...	1305	16.4	2500	6.4	11.0
		10...	1306	19.7	2590	6.4	10.5
AIR TEMPERATURE (DEG C):	31.0	10...	1307	23.0	2720	6.4	10.5
		10...	1308	26.2	2880	6.4	11.0
REMARKS:	SLOPING SPOIL BANKS. OUTLET PRESENT.	10...	1309	29.5	2880	6.4	10.5
		10...	1310	32.8	3000	6.4	10.0
		10...	1311	36.1	3150	6.5	9.0
		10...	1312	39.4	3390	6.5	9.0
		10...	1313	42.6	4030	6.4	10.0
		10...	1314	45.9	4220	6.3	10.5

## LAKE NO. 7 - CRAB ORCHARD QUADRANGLE (FIG. 5)

STATION ID:	374001088451901						
LAKE LAT-LONG:	373929 0884549						
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR STONEFORT, IL						
LAKE SIZE (ACRES):	117.	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu\text{s}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	72.0						
MAXIMUM WIDTH (MILES):	0.18	June					
MAXIMUM LENGTH (MILES):	1.63	14...	0910	.00	1500	3.3	24.5
		14...	0911	3.30	1500	3.3	25.0
TRANSPARENCY (SECCHI DISC) (FEET):	17.7	14...	0912	6.60	1500	3.3	24.5
		14...	0913	9.80	1500	3.3	24.5
		14...	0914	13.1	1500	3.3	24.5
COLOR:	GREEN	14...	0915	16.4	1600	3.3	23.5
		14...	0916	19.7	1760	3.0	20.5
VEGETATION:	GRASSES	14...	0917	23.0	1890	2.9	16.0
		14...	0918	26.2	2050	2.8	13.0
AIR TEMPERATURE (DEG C):	25.0	14...	0919	29.5	2140	2.9	12.0
		14...	0920	32.8	3220	3.2	12.0
REMARKS:	GENTLY SLOPING SHORE.	14...	0921	36.1	5160	5.6	11.0
		14...	0922	39.4	5250	5.8	10.5
		14...	0923	42.6	5400	5.8	10.5
		14...	0924	45.9	5440	5.9	10.5
		14...	0925	49.2	5490	5.9	10.5
		14...	0926	52.5	5560	5.9	10.5
		14...	0927	55.8	5620	6.0	10.5
		14...	0928	59.0	5690	6.0	10.5
		14...	0929	62.3	5790	6.1	10.5
		14...	0930	65.6	5960	6.2	11.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 8 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374019088413701						
LAKE LAT-LONG:	374020 0884055						
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR CARRIER MILLS, IL						
LAKE SIZE (ACRES):	47.5	Time	Sam-	Spe-	pH	Temper-	Oxygen,
MAXIMUM DEPTH (FEET):	32.0	Date	pling depth (feet)	con-duct-ance ( $\mu\text{s}/\text{cm}$ )	(stand ard units)	(deg C)	dis-solved (mg/L)
MAXIMUM WIDTH (MILES):	0.08						
MAXIMUM LENGTH (MILES):	1.70						
TRANSPARENCY (SECCHI DISC) (FEET):	7.5						
REMARKS: SHORELINE EVEN ALONG FINAL CUT, OTHERWISE IRREGULAR. OUTLET PRESENT. WATER CLEAR.							
June							
	10...	1131	.00	673	7.0	24.5	8.2
	10...	1132	3.30	666	7.3	24.5	7.9
	10...	1133	6.60	728	7.1	22.5	7.3
	10...	1134	9.80	1150	6.7	16.0	5.7
	10...	1135	13.1	1660	6.5	14.5	5.3
	10...	1136	16.4	2040	6.5	13.0	2.8
	10...	1137	19.7	2150	6.5	12.0	1.6
	10...	1138	23.0	2290	6.6	11.5	1.3
	10...	1139	26.2	2390	6.6	11.5	1.3
	10...	1140	29.5	2560	6.6	11.0	1.3

## LAKE NO. 9 - SHAWNEETOWN QUADRANGLE (FIG. 17)

STATION ID:	374029088135201						
LAKE LAT-LONG:	374033 0881401						
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR SHAWNEETOWN, IL						
LAKE SIZE (ACRES):	210.	Time	Sam-	Spe-	pH	Temper-	Oxygen,
MAXIMUM DEPTH (FEET):	17.0	Date	pling depth (feet)	con-duct-ance ( $\mu\text{s}/\text{cm}$ )	(stand ard units)	(deg C)	dis-solved (mg/L)
MAXIMUM WIDTH (MILES):	0.35						
MAXIMUM LENGTH (MILES):	0.64						
TRANSPARENCY (SECCHI DISC) (FEET):	14.4						
REMARKS: FRESH WATER IMPOUNDMENT FOR PROCESSING PLANT. THICK AQUATIC VEGETATION. WATER VERY CLEAR. OUTLET PRESENT.							
June							
	16...	1302	.00	849	9.6	26.5	9.7
	16...	1303	3.30	875	9.4	26.5	9.4
	16...	1304	4.90	875	9.3	26.5	9.3
	16...	1305	6.60	875	9.2	26.0	9.4
	16...	1306	8.20	878	9.1	25.5	9.2
	16...	1307	9.80	887	8.6	25.5	8.4
	16...	1308	11.5	913	7.8	25.0	7.1
	16...	1309	13.1	1050	7.1	23.5	6.2
	16...	1310	14.8	1140	6.4	20.0	4.3
	16...	1311	16.4	1170	7.1	18.0	2.6

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 10 - SHAWNEETOWN QUADRANGLE (FIG. 17)

STATION ID:	374040088123201					
LAKE LAT-LONG:	374025 0881237					
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR SHAWNEETOWN, IL					
LAKE SIZE (ACRES):	13.0					
MAXIMUM DEPTH (FEET):	36.0					
MAXIMUM WIDTH (MILES):	0.06					
MAXIMUM LENGTH (MILES):	0.34					
TRANSPARENCY (SECCHI DISC) (FEET):	3.6					
COLOR:	DARK GREEN					
VEGETATION:	GRASSES					
REMARKS:	SLOPING SPOIL.					
	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)
June						
	16...	1400	.00	2110	7.8	28.5
	16...	1401	3.30	2120	7.9	27.0
	16...	1402	6.60	2440	6.9	24.5
	16...	1403	9.80	2510	4.8	15.5
	16...	1404	13.1	2570	6.4	12.0
	16...	1405	16.4	2690	6.6	11.0
	16...	1406	19.7	2760	6.7	10.5
	16...	1407	23.0	2870	6.7	10.5
	16...	1408	26.2	2960	6.7	10.5
	16...	1409	29.5	3030	6.7	10.5
	16...	1410	32.8	3170	6.7	10.5
	16...	1411	34.4	3230	6.6	10.5

## LAKE NO. 11 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374042088395101					
LAKE LAT-LONG:	374025 0883958					
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR CARRIER MILLS, IL					
LAKE SIZE (ACRES):	56.3					
MAXIMUM DEPTH (FEET):	33.0					
MAXIMUM WIDTH (MILES):	0.07					
MAXIMUM LENGTH (MILES):	1.57					
TRANSPARENCY (SECCHI DISC) (FEET):	7.4					
VEGETATION:	GRASSES					
AIR TEMPERATURE (DEG C):	30.0					
REMARKS:	SLOPING SPOIL. MARSHY AT NORTHEAST END OF LAKE.					
	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)
June						
	10...	1011	.00	865	7.3	25.0
	10...	1012	3.30	866	7.6	24.5
	10...	1013	6.60	925	7.4	23.5
	10...	1014	9.80	1030	7.2	21.0
	10...	1015	13.1	1540	6.8	15.5
	10...	1016	16.4	2100	6.6	13.0
	10...	1017	19.7	2630	6.6	12.5
	10...	1018	23.0	3110	6.6	12.0
	10...	1019	26.2	3290	6.6	12.0
	10...	1020	29.5	3420	6.6	11.5
	10...	1021	32.8	3460	6.6	11.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

LAKE NO. 12 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID: 374052088412301  
 LAKE LAT-LONG: 374048 0884112 WATER-QUALITY DATA  
 LAKE NAME: UNNAMED LAKE NO. 4 NEAR CARRIER MILLS, IL  
 LAKE SIZE (ACRES): 16.4  
 MAXIMUM DEPTH (FEET): 15.0  
 MAXIMUM WIDTH (MILES): 0.07  
 MAXIMUM LENGTH (MILES): 0.91  
 TRANSPARENCY (SECCHI DISC) (FEET): 4.9  
 VEGETATION: WOODS, BRUSH  
 AIR TEMPERATURE (DEG C): 28.0  
 REMARKS: VERY NARROW, UNIFORM CHANNEL. STEEP SPOIL BANKS TO NORTH, FARMLAND TO SOUTH. WATER PUMPED OUT FOR MINE USE.

	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu\text{s}/\text{cm}$ )	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
June							
	09...	1216	.00	556	6.4	25.0	8.9
	09...	1217	1.60	556	6.8	24.0	8.7
	09...	1218	3.30	550	7.0	23.5	8.7
	09...	1219	4.90	562	7.1	23.5	8.8
	09...	1220	6.60	713	6.9	22.5	8.8
	09...	1221	8.20	629	6.9	19.5	8.1
	09...	1222	9.80	555	6.9	16.5	6.9
	09...	1223	11.5	564	6.9	14.5	4.0
	09...	1224	13.1	585	6.8	12.5	2.6

Lake No. 13 - Harrisburg Quadrangle (Fig. 10)

STATION ID: 374118088345801  
 LAKE LAT-LONG: 374110 0883431 WATER-QUALITY DATA  
 LAKE NAME: UNNAMED LAKE NO. 1 NEAR LEDFORD, IL  
 LAKE SIZE (ACRES): 15.8  
 MAXIMUM DEPTH (FEET): 38.0  
 MAXIMUM WIDTH (MILES): 0.03  
 MAXIMUM LENGTH (MILES): 0.80  
 TRANSPARENCY (SECCHI DISC)  
 (FEET): 5.2  
 VEGETATION: WOODS  
 REMARKS: WATER MURKY.

	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance (µS/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
June							
	14...	1450	.00	185	6.7	28.5	7.7
	14...	1451	3.30	187	6.8	26.5	8.0
	14...	1452	6.60	185	6.8	24.5	7.5
	14...	1453	9.80	183	6.5	22.0	3.7
	14...	1454	13.1	179	6.4	19.0	1.3
	14...	1455	16.4	195	6.4	16.5	1.3
	14...	1456	19.7	292	6.4	14.0	1.2
	14...	1457	23.0	379	6.3	12.0	1.2
	14...	1458	26.2	407	6.3	11.5	1.2
	14...	1459	29.5	493	6.4	10.5	1.3
	14...	1500	32.8	782	6.5	9.5	1.4
	14...	1501	36.1	1090	6.7	9.0	1.4

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 14 - CRAB ORCHARD QUADRANGLE (FIG. 5)

STATION ID:	374127088464701							
LAKE LAT-LONG:	374129 0884625							
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR CRAB ORCHARD, IL							
LAKE SIZE (ACRES):	16.7	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
MAXIMUM DEPTH (FEET):	33.0	Date						
MAXIMUM WIDTH (MILES):	0.08	July						
MAXIMUM LENGTH (MILES):	0.46	19...	1323	.00	1860	7.2	33.0	6.4
		19...	1324	2.00	1860	7.0	32.0	6.3
TRANSPARENCY (SECCHI DISC) (FEET):	4.3	19...	1325	4.00	1850	6.6	30.5	5.4
		19...	1326	6.00	2200	6.5	27.0	3.9
		19...	1327	8.00	2300	6.5	25.0	3.1
COLOR:	BROWN TO DARK GREEN	19...	1328	10.0	2280	6.4	22.0	2.7
		19...	1329	12.0	2220	6.4	19.5	1.6
VEGETATION:	RINGED WITH CATTAILS, GRASSES	19...	1330	14.0	2200	6.3	18.0	.7
		19...	1331	16.0	2180	6.3	16.0	.2
		19...	1332	18.0	2180	6.3	15.0	.1
REMARKS: GENTLY SLOPING SPOIL BANKS. OUTLET PRESENT.		19...	1333	20.0	2170	6.3	13.5	.1
		19...	1334	22.0	2170	6.3	12.5	.1
		19...	1335	24.0	2140	6.2	11.0	.0
		19...	1336	26.0	2160	6.3	10.5	.0
		19...	1337	28.0	2220	6.3	10.0	.0
		19...	1338	30.0	2260	6.4	10.0	.0
		19...	1339	32.0	2280	6.4	9.5	.0

## LAKE NO. 15 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374131088384501							
LAKE LAT-LONG:	374118 0883838							
LAKE NAME:	UNNAMED LAKE NO. 1 AT CARRIER MILLS, IL							
LAKE SIZE (ACRES):	12.2	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
MAXIMUM DEPTH (FEET):	25.0	Date						
MAXIMUM WIDTH (MILES):	0.03	June						
MAXIMUM LENGTH (MILES):	0.61	09...	1640	.00	229	6.4	26.0	8.4
		09...	1641	3.30	230	6.5	23.5	7.8
TRANSPARENCY (SECCHI DISC) (FEET):	3.6	09...	1642	6.60	234	6.5	20.5	5.5
		09...	1643	9.80	284	6.3	15.0	2.3
		09...	1644	13.1	311	6.3	12.5	2.9
		09...	1645	16.4	348	6.3	11.5	2.4
		09...	1646	19.7	470	6.3	11.5	1.8
		09...	1647	21.3	493	6.3	11.0	1.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 16 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374136088420001						
LAKE LAT-LONG:	374114 0884154						
LAKE NAME:	UNNAMED LAKE NO. 5 NEAR CARRIER MILLS, IL						
LAKE SIZE (ACRES):	21.1	Time	Sam-	Spe-	pH	Temper-	Oxygen,
MAXIMUM DEPTH (FEET):	45.0	Date	pling depth (feet)	con-	(stand-	ature (deg C)	dis-
MAXIMUM WIDTH (MILES):	0.05			duct-	ard units)		solved
MAXIMUM LENGTH (MILES):	1.23			ance ( $\mu\text{s}/\text{cm}$ )			(mg/L)
TRANSPARENCY (SECCHI DISC) (FEET):	35.4						
VEGETATION:	WOODS, BRUSH						
REMARKS:	VERY IRREGULAR SHORELINE, IN AND OUT OF OLD SPOIL MATERIAL. ROCK HIGHWALL ALONG NORTH EDGE OF LAKE.						
June							
09...	1356	.00	1110	7.8	25.0	9.1	
09...	1357	1.60	1110	7.9	24.5	9.0	
09...	1358	3.30	1110	7.9	23.0	9.0	
09...	1359	6.60	1110	8.0	22.5	9.0	
09...	1400	9.80	1270	7.4	19.0	7.3	
09...	1401	13.1	1320	7.2	15.5	6.5	
09...	1402	16.4	1370	7.2	14.0	5.6	
09...	1403	19.7	1400	7.1	12.5	4.2	
09...	1404	23.0	1430	7.1	11.5	3.9	
09...	1405	26.2	1520	7.0	11.5	2.9	
09...	1406	29.5	1650	7.0	11.0	2.2	
09...	1407	32.8	1730	6.9	10.0	2.0	
09...	1408	36.1	1900	6.8	10.0	2.5	
09...	1409	39.4	2120	6.7	9.5	2.2	
09...	1410	41.0	2150	6.7	9.5	1.7	

## LAKE NO. 17 - HARRISBURG QUADRANGLE (FIG. 10)

STATION ID:	374224088315101						
LAKE LAT-LONG:	374220 0883149						
LAKE NAME:	UNNAMED LAKE NO. 1 AT PANKEYVILLE, IL						
LAKE SIZE (ACRES):	23.1	Time	Sam-	Spe-	pH	Temper-	Oxygen,
MAXIMUM DEPTH (FEET):	46.0	Date	pling depth (feet)	con-	(stand-	ature (deg C)	dis-
MAXIMUM WIDTH (MILES):	0.06			duct-	ard units)		solved
MAXIMUM LENGTH (MILES):	0.47			ance ( $\mu\text{s}/\text{cm}$ )			(mg/L)
TRANSPARENCY (SECCHI DISC) (FEET):	5.9						
COLOR:	DARK GREEN						
VEGETATION:	WOODS						
AIR TEMPERATURE (DEG C):	27.0						
REMARKS:	THICK VEGETATION ON VERY IRREGULAR SHORELINE. SEVERAL ISLANDS AND SHALLOW AREAS.						
June							
15...	1321	.00	305	8.4	28.5	9.2	
15...	1322	3.30	311	8.6	27.0	9.2	
15...	1323	6.60	312	8.6	26.5	9.1	
15...	1324	9.80	311	8.0	22.5	8.1	
15...	1325	11.5	308	7.3	20.5	5.1	
15...	1326	13.1	306	7.6	19.5	2.4	
15...	1327	16.4	317	7.2	17.0	1.0	
15...	1328	19.7	363	7.1	14.5	.9	
15...	1329	23.0	387	7.3	12.0	1.5	
15...	1330	26.2	399	7.3	9.5	1.4	
15...	1331	29.5	429	7.3	8.0	1.2	
15...	1332	32.8	1100	7.1	8.0	1.2	
15...	1333	36.1	2350	6.7	8.5	1.1	
15...	1334	39.4	2400	6.7	8.5	1.1	
15...	1335	42.6	2430	6.7	8.5	1.1	
15...	1336	44.3	2450	6.6	8.5	1.1	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 18 - CRAB ORCHARD QUADRANGLE (FIG. 5)

STATION ID:	374240088464701						
LAKE LAT-LONG:	374227 0884701						
LAKE NAME:	UNNAMED LAKE NO. 4 NEAR CRAB ORCHARD, IL						
LAKE SIZE (ACRES):	10.8			Spec- ific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	17.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	0.65						
TRANSPARENCY (SECCHI DISC) (FEET):	9.8						
COLOR:	DARK GREEN						
VEGETATION:	WOODS						
AIR TEMPERATURE (DEG C):	35.0						
REMARKS:	VERY IRREGULAR SHORELINE. MUCH ALGAE AND AQUATIC WEEDS.						

## LAKE NO. 19 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374316088394101						
LAKE LAT-LONG:	374311 0883942						
LAKE NAME:	UNNAMED LAKE NO. 8 NEAR CARRIER MILLS, IL						
LAKE SIZE (ACRES):	8.8			Spec- ific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	43.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.07						
MAXIMUM LENGTH (MILES):	0.27						
TRANSPARENCY (SECCHI DISC) (FEET):	6.2						
VEGETATION:	WOODS, BRUSH						
AIR TEMPERATURE (DEG C):	27.5						
REMARKS:	IRON RESIDUE INDICATES WATER LEVEL LOW.						
June							
07...	1440	.00	3190	3.2	24.5	7.6	
07...	1441	3.30	3190	3.2	22.5	7.5	
07...	1442	6.60	3110	3.7	18.0	5.8	
07...	1443	9.80	3090	5.8	13.5	5.9	
07...	1444	13.1	3120	6.2	11.5	5.7	
07...	1445	16.4	3140	6.4	10.5	5.8	
07...	1446	19.7	3150	6.4	10.0	5.7	
07...	1447	23.0	3170	6.5	9.5	5.8	
07...	1448	26.2	3170	6.5	8.5	6.0	
07...	1449	29.5	3180	6.4	8.0	6.2	
07...	1450	32.8	3190	6.4	8.0	6.4	
07...	1451	36.1	3190	6.4	8.0	6.4	
07...	1452	39.4	3200	6.3	8.0	6.2	
07...	1453	42.6	3180	6.4	8.0	4.2	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 20 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374326088391201						
LAKE LAT-LONG:	374250 0883847						
LAKE NAME:	UNNAMED LAKE NO. 10 NEAR CARRIER MILLS, IL						
LAKE SIZE (ACRES):	39.0	Time	Spec- cific conduct- ance ( $\mu$ S/cm)	pH (stand- ard units)	oxida- tion reduc- tion poten- tial (mv)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	55.0	Date	sam- pling depth (feet)				
MAXIMUM WIDTH (MILES):	0.08						
MAXIMUM LENGTH (MILES):	1.27	June					
TRANSPARENCY (SECCHI DISC) (FEET):	5.7	06...	1517 .00	3860 7.2	236 23.5	7.8	
COLOR:	GREEN	06...	1518 3.30	4000 6.8	249 22.5	6.5	
VEGETATION:	WOODS	06...	1519 6.60	4730 6.7	252 17.5	1.7	
REMARKS:	SEE ALSO 374326088385802. SHALLOW SILL SEPARATES LAKE SECTIONS.	06...	1520 9.80	4770 6.8	252 15.5	1.2	
		06...	1521 13.1	4810 6.8	251 14.5	1.2	
		06...	1522 16.4	4800 6.8	251 13.5	1.3	
		06...	1523 19.7	4820 6.8	251 13.0	1.3	
		06...	1524 23.0	5070 6.8	249 11.5	1.2	
		06...	1525 26.2	5360 6.9	238 11.0	1.2	
		06...	1526 29.5	5480 6.9	224 10.5	1.2	
		06...	1527 32.8	5470 7.0	221 10.5	1.2	
		06...	1528 36.1	5570 7.0	216 10.0	1.2	
		06...	1529 39.4	5640 7.0	206 10.0	1.3	
		06...	1530 42.6	5710 7.0	145 9.5	1.7	
		06...	1531 45.9	5740 7.0	81 9.0	1.5	
		06...	1532 49.2	5750 7.0	54 9.0	1.5	
		06...	1533 52.5	5790 7.0	12 9.0	1.5	

STATION ID:	374326088385802						
LAKE LAT-LONG:	374250 0883847						
LAKE NAME:	UNNAMED LAKE NO. 10 NEAR CARRIER MILLS, IL						
LAKE SIZE (ACRES):	39.0	Time	Spec- cific conduct- ance ( $\mu$ S/cm)	pH (stand- ard units)	oxida- tion reduc- tion poten- tial (mv)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	50.0	Date	sam- pling depth (feet)				
MAXIMUM WIDTH (MILES):	0.08						
MAXIMUM LENGTH (MILES):	1.27	June					
TRANSPARENCY (SECCHI DISC) (FEET):	5.9	06...	1546 .00	3940 7.3	209 23.0	7.8	
COLOR:	GREEN	06...	1547 3.30	3920 7.2	216 23.0	7.6	
VEGETATION:	WOODS	06...	1548 6.60	4230 6.9	227 20.5	5.9	
REMARKS:	SEE ALSO 374326088391201. SHALLOW SILL SEPARATES TWO SECTIONS OF LAKE.	06...	1549 9.80	4430 6.8	229 19.0	3.9	
		06...	1550 13.1	4440 6.8	229 17.5	3.8	
		06...	1551 16.4	4360 6.8	231 15.0	4.0	
		06...	1552 19.7	4310 6.9	232 13.0	4.2	
		06...	1553 23.0	4300 6.9	233 11.0	4.0	
		06...	1554 26.2	4400 7.0	231 10.0	3.1	
		06...	1555 29.5	4520 7.1	229 9.5	2.0	
		06...	1556 32.8	4590 7.0	224 9.5	1.4	
		06...	1557 36.1	4630 7.0	208 9.5	1.3	
		06...	1558 39.4	4670 7.0	191 9.5	1.3	
		06...	1559 42.6	4690 7.0	142 9.5	1.3	
		06...	1600 45.9	4710 7.0	99 9.5	1.3	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 21 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374329088383901						
LAKE LAT-LONG:	374308 0883834						
LAKE NAME: UNNAMED LAKE NO. 11 NEAR CARRIER MILLS, IL	WATER-QUALITY DATA						
LAKE SIZE (ACRES):	16.7			Spe- ci-fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	50.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.10						
MAXIMUM LENGTH (MILES):	0.40						
TRANSPARENCY (SECCHI DISC) (FEET):	9.2						
AIR TEMPERATURE (DEG C):	26.0						
June							
07...	1259		.00	3540	7.7	22.5	9.4
07...	1300		3.30	2890	7.8	20.5	9.1
07...	1301		6.60	2910	7.8	20.0	9.2
07...	1302		9.80	2910	7.7	19.5	9.3
07...	1303		13.1	2900	7.7	18.0	9.6
07...	1304		16.4	2950	7.7	15.0	10.6
07...	1305		19.7	2990	7.9	12.5	11.7
07...	1306		23.0	3000	8.0	11.0	11.6
07...	1307		26.2	3690	7.9	10.0	12.3
07...	1308		29.5	3700	7.9	9.5	11.8
07...	1309		32.8	3690	7.9	8.5	11.4
07...	1310		36.1	3020	7.9	8.0	11.0
07...	1311		39.4	3020	7.8	8.0	10.8
07...	1312		42.6	3020	7.8	8.0	10.8
07...	1313		45.9	3020	7.8	8.0	10.0
07...	1314		49.2	3010	7.7	8.0	9.0

## LAKE NO. 22 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	374334088422601						
LAKE LAT-LONG:	374305 0884227						
LAKE NAME: UNNAMED LAKE NO. 6 NEAR CARRIER MILLS, IL	WATER-QUALITY DATA						
LAKE SIZE (ACRES):	16.8			Spe- ci-fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	35.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.07						
MAXIMUM LENGTH (MILES):	0.61						
TRANSPARENCY (SECCHI DISC) (FEET):	24.6						
AIR TEMPERATURE (DEG C):	25.0						
REMARKS: WATER VERY CLEAR. MUCH AQUATIC VEGETATION.							
June							
09...	1005		.00	3250	7.5	23.0	10.8
09...	1006		3.30	3350	7.5	22.5	10.6
09...	1007		6.60	3350	7.5	22.5	10.4
09...	1008		9.80	3390	7.7	19.5	14.6
09...	1009		13.1	3450	7.6	16.5	13.9
09...	1010		16.4	3570	7.3	14.5	9.5
09...	1011		19.7	3670	7.2	13.5	7.4
09...	1012		23.0	3760	7.1	13.0	6.2
09...	1013		26.2	3830	7.1	12.5	7.9
09...	1014		29.5	3870	7.0	12.5	8.2

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 23 - CARRIER MILLS AND CRAB ORCHARD QUADRANGLES (FIGS. 4, 5)

STATION ID:	3743460S8433401	WATER-QUALITY DATA					
LAKE LAT-LONG:	374348 0884320						
<b>LAKE NAME: UNNAMED LAKE NO. 1 NEAR CRAB ORCHARD, IL</b>							
LAKE SIZE (ACRES):	41.2		Sam-	Spe-	pH		Oxygen,
MAXIMUM DEPTH (FEET):	31.0	Time	pling	ci- con- duct-	(stand- ard units)	Temper- ature (deg C)	dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.05	Date	depth (feet)	ance ( $\mu$ S/cm)			
MAXIMUM LENGTH (MILES):	1.87	<b>July</b>					
TRANSPARENCY (SECCHI DISC) (FEET):	7.2	19...	1557	.00	3550	7.7	32.0
COLOR:	AQUA GREEN	19...	1558	2.00	3550	7.7	32.0
VEGETATION:	GRASSES	19...	1559	4.00	3540	7.7	31.5
AIR TEMPERATURE (DEG C):	36.0	19...	1600	6.00	3590	7.3	28.5
REMARKS:	VERY STEEP SHORE AND VERTICAL ROCK HIGHWALLS. OUTLET PRESENT.	19...	1601	8.00	3660	6.9	24.0
MAXIMUM LENGTH (MILES):	1.87	19...	1602	10.0	3830	6.7	20.0
TRANSPARENCY (SECCHI DISC) (FEET):	7.2	19...	1603	12.0	3820	6.6	17.5
COLOR:	AQUA GREEN	19...	1604	14.0	3810	6.6	16.0
VEGETATION:	GRASSES	19...	1605	16.0	3830	6.6	15.0
AIR TEMPERATURE (DEG C):	36.0	19...	1606	18.0	3900	6.6	14.0
REMARKS:	VERY STEEP SHORE AND VERTICAL ROCK HIGHWALLS. OUTLET PRESENT.	19...	1607	20.0	4000	6.5	13.0
MAXIMUM LENGTH (MILES):	1.87	19...	1608	22.0	4070	6.5	12.5
TRANSPARENCY (SECCHI DISC) (FEET):	7.2	19...	1609	24.0	4120	6.5	12.5
COLOR:	BROWN	19...	1610	26.0	4120	6.5	12.0
VEGETATION:	WOODS, GRASSES	19...	1611	28.0	4140	6.5	12.0
AIR TEMPERATURE (DEG C):	36.0	19...	1612	30.0	4140	6.5	12.0

## LAKE NO. 24 - CARRIER MILLS QUADRANGLE (FIG. 4)

STATION ID:	3743510S8412001	WATER-QUALITY DATA					
LAKE LAT-LONG:	374347 0884055						
<b>LAKE NAME: UNNAMED LAKE NO. 7 NEAR CARRIER MILLS, IL</b>							
LAKE SIZE (ACRES):	76.2		Sam-	Spe-	pH		Oxygen,
MAXIMUM DEPTH (FEET):	52.0	Time	pling	ci- con- duct-	(stand- ard units)	Temper- ature (deg C)	dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.05	Date	depth (feet)	ance ( $\mu$ S/cm)			
MAXIMUM LENGTH (MILES):	1.38	<b>June</b>					
TRANSPARENCY (SECCHI DISC) (FEET):	3.0	08...	1612	.00	2890	6.9	26.5
COLOR:	BROWN	08...	1613	3.30	2850	6.8	23.5
VEGETATION:	WOODS, GRASSES	08...	1614	6.60	3150	6.5	18.5
AIR TEMPERATURE (DEG C):	27.0	08...	1615	9.80	3370	6.5	15.5
REMARKS:	HIGH SLOPING SPOIL BANKS. OUTLET PRESENT.	08...	1616	13.1	3470	6.6	14.0
MAXIMUM LENGTH (MILES):	1.38	08...	1617	16.4	3520	6.6	13.0
TRANSPARENCY (SECCHI DISC) (FEET):	3.0	08...	1618	19.7	3530	6.6	12.5
COLOR:	BROWN	08...	1619	23.0	3640	6.6	12.0
VEGETATION:	WOODS, GRASSES	08...	1620	26.2	3680	6.6	12.0
AIR TEMPERATURE (DEG C):	27.0	08...	1621	29.5	3700	6.7	12.0
REMARKS:	HIGH SLOPING SPOIL BANKS. OUTLET PRESENT.	08...	1622	32.8	3750	6.6	12.0
MAXIMUM LENGTH (MILES):	1.38	08...	1623	36.1	3810	6.6	12.0
TRANSPARENCY (SECCHI DISC) (FEET):	3.0	08...	1624	39.4	3870	6.6	12.0
COLOR:	BROWN	08...	1625	42.6	3950	6.6	12.0
VEGETATION:	WOODS, GRASSES	08...	1626	45.9	4020	6.6	12.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 25 - CRAB ORCHARD QUADRANGLE (FIG. 5)

STATION ID:	374408088490001						
LAKE LAT-LONG:	374406 0884906						
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR CRAB ORCHARD, IL						
LAKE SIZE (ACRES):	10.0						
MAXIMUM DEPTH (FEET):	38.0						
MAXIMUM WIDTH (MILES):	0.07						
MAXIMUM WIDTH (MILES):	0.25						
TRANSPARENCY (SECCHI DISC) (FEET):	3.6						
COLOR:	LIME GREEN						
VEGETATION:	NONE						
AIR TEMPERATURE (DEG C):	33.0						
REMARKS:	NEW LAKE, STILL GRADING SPOIL MATERIAL, NO VEGETATION. OUTLET PRESENT.						
Date	Time	Sam- pling depth (feet)	Spec- ific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
July							
19...	1018	.00	982	8.4	31.0	7.5	
19...	1019	2.00	987	8.4	31.0	7.4	
19...	1020	4.00	986	8.4	31.0	7.3	
19...	1021	6.00	984	8.3	30.0	8.5	
19...	1022	8.00	1010	7.8	26.5	7.4	
19...	1023	10.0	1050	7.4	24.5	3.5	
19...	1024	12.0	1060	7.2	22.0	.4	
19...	1025	14.0	1070	7.1	21.0	.1	
19...	1026	16.0	1070	7.1	20.5	.1	
19...	1027	18.0	1070	7.0	20.5	.1	
19...	1028	20.0	1070	7.0	20.5	.0	
19...	1029	22.0	1070	7.0	20.5	.0	
19...	1030	24.0	1070	7.0	20.5	.0	
19...	1031	26.0	1070	7.0	20.5	.0	
19...	1032	28.0	1070	7.0	20.5	.0	
19...	1033	30.0	1080	7.0	20.5	.0	
19...	1034	32.0	1080	6.9	20.0	.0	
19...	1035	34.0	1080	6.9	20.0	.0	
19...	1036	36.0	1090	6.9	20.0	.0	
19...	1037	37.0	1100	6.9	19.5	.0	

## LAKE NO. 26 - MARION QUADRANGLE (FIG. 12)

STATION ID:	374458088575801						
LAKE LAT-LONG:	374437 0885809						
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR MARION, IL						
LAKE SIZE (ACRES):	28.4						
MAXIMUM DEPTH (FEET):	49.0						
MAXIMUM WIDTH (MILES):	0.12						
MAXIMUM LENGTH (MILES):	0.47						
TRANSPARENCY (SECCHI DISC) (FEET):	20.0						
REMARKS:	VERY IRREGULAR SHORELINE, WITH SEVERAL ISLANDS PRESENT.						
Date	Time	Sam- pling depth (feet)	Spec- ific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
June							
17...	1040	.00	2000	7.3	26.0	7.6	
17...	1041	3.30	2000	7.4	25.5	7.5	
17...	1042	6.60	2000	7.4	25.5	7.4	
17...	1043	9.80	2050	7.1	24.5	7.2	
17...	1044	13.1	2190	7.0	20.0	8.9	
17...	1045	16.4	2200	7.2	15.5	8.7	
17...	1046	19.7	2240	7.2	13.5	8.8	
17...	1047	23.0	2300	7.0	12.0	6.7	
17...	1048	26.2	2300	7.0	11.0	6.2	
17...	1049	29.5	2300	7.0	10.0	6.0	
17...	1050	32.8	2300	7.0	9.0	5.5	
17...	1051	36.1	2300	7.1	8.5	4.7	
17...	1052	39.4	2330	7.1	8.0	2.5	
17...	1053	42.6	2430	7.1	7.5	1.3	
17...	1054	45.9	2770	7.0	8.0	1.1	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 27 - HERRIN QUADRANGLE (FIG. 11)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:		LAKE NAME: UNNAMED LAKE NO. 1 AT CARTERVILLE, IL					
LAKE SIZE (ACRES):	10.5			Spec- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	31.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	0.57	Aug.					
TRANSPARENCY (SECCHI DISC) (FEET):	10.6	03...	1210	.00	295	9.0	31.5
COLOR:	DARK GREEN	03...	1211	2.00	295	9.0	31.0
VEGETATION:	WOODS	03...	1212	4.00	295	9.1	30.5
AIR TEMPERATURE (DEG C):	33.5	03...	1213	6.00	296	9.0	30.5
REMARKS:	LARGE ALGAL MATS NEAR SHORE. IRREGULAR SHORELINE. OLD LAKE, UNEVEN BOTTOM.	03...	1214	8.00	413	8.1	25.5
		03...	1215	10.0	413	7.5	18.5
		03...	1216	12.0	406	7.3	15.5
		03...	1217	14.0	410	7.1	11.5
		03...	1218	16.0	405	7.0	10.0
		03...	1219	18.0	411	6.9	9.0
		03...	1220	20.0	412	6.9	8.5
		03...	1221	22.0	413	6.9	8.5
		03...	1222	24.0	416	6.8	8.0
		03...	1223	26.0	421	6.7	8.0
		03...	1224	28.0	428	6.7	8.0
		03...	1225	30.0	433	6.7	8.0

## LAKE NO. 28 - HERRIN QUADRANGLE (FIG. 11)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:		LAKE NAME: UNNAMED LAKE NO. 2 AT ENERGY, IL					
LAKE SIZE (ACRES):	20.5			Spec- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	21.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	0.53	Aug.					
TRANSPARENCY (SECCHI DISC) (FEET):	2.0	04...	1310	.00	477	8.6	32.5
COLOR:	BROWN GREEN	04...	1311	2.00	479	8.7	31.5
VEGETATION:	GRASSES	04...	1312	4.00	483	8.5	31.0
AIR TEMPERATURE (DEG C):	37.0	04...	1313	6.00	492	7.9	30.0
REMARKS:	GENTLY SLOPING SPOIL. SHALLOW SOFT BOTTOMED LAKE. OUTLET PRESENT.	04...	1314	8.00	496	7.4	28.5
		04...	1315	10.0	592	7.0	23.5
		04...	1316	12.0	723	6.9	20.5
		04...	1317	14.0	886	6.8	18.5
		04...	1318	16.0	1000	6.8	17.5
		04...	1319	18.0	1200	6.7	16.0
		04...	1320	20.0	1340	6.7	15.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 29 - HERRIN QUADRANGLE (FIG. 11)

STATION ID:	374623089001601						
LAKE LAT-LONG:	374609 0890030						
LAKE NAME:	UNNAMED LAKE NO. 1 AT ENERGY, IL						
LAKE SIZE (ACRES):	20.6	Time	Sam-	Spe-	pH	Temper-	Oxygen,
MAXIMUM DEPTH (FEET):	35.0	Date	pling depth (feet)	cific conduct- ance ( $\mu$ S/cm)	(stand- ard units)	ature (deg C)	dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.05	Aug.					
MAXIMUM LENGTH (MILES):	0.98	03...	1029 .00	2650	7.9	31.0	7.2
		03...	1030 2.00	2660	7.9	31.0	7.1
TRANSPARENCY (SECCHI DISC) (FEET):	9.2	03...	1031 4.00	2660	7.9	31.0	7.1
		03...	1032 6.00	2660	7.8	31.0	7.0
		03...	1033 8.00	2660	7.8	30.5	6.8
COLOR:	BROWN TO DARK GREEN	03...	1034 10.0	2790	7.4	29.0	11.6
		03...	1035 12.0	2930	7.2	24.5	11.9
VEGETATION:	WOODS, GRASSES	03...	1036 14.0	2980	7.1	20.0	9.4
		03...	1037 16.0	3040	6.9	17.0	6.6
AIR TEMPERATURE (DEG C):	31.0	03...	1038 18.0	3130	6.7	15.5	4.5
		03...	1039 20.0	3200	6.6	14.0	3.0
REMARKS:	MUCH AQUATIC VEGETATION AND PHRAGMITES PRESENT.	03...	1040 22.0	3250	6.5	13.5	2.2
		03...	1041 24.0	3320	6.5	12.5	1.8
		03...	1042 26.0	3410	6.4	12.5	1.8
		03...	1043 28.0	3480	6.4	12.0	1.9
		03...	1044 30.0	3610	6.4	11.5	2.1
		03...	1045 32.0	3650	6.4	11.5	2.4
		03...	1046 34.0	3710	6.4	11.5	2.8

## LAKE NO. 30 - DE SOTO AND HERRIN QUADRANGLES (FIGS. 6, 11)

STATION ID:	3746480S9073801						
LAKE LAT-LONG:	374650 0890741						
LAKE NAME:	UNNAMED LAKE NO. 1 AT CAMBRIA, IL						
LAKE SIZE (ACRES):	11.7	Time	Sam-	Spe-	pH	Temper-	Oxygen,
MAXIMUM DEPTH (FEET):	49.0	Date	pling depth (feet)	cific conduct- ance ( $\mu$ S/cm)	(stand- ard units)	ature (deg C)	dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.06	Aug.					
MAXIMUM LENGTH (MILES):	0.62	04...	0949 .00	2800	7.2	31.0	8.1
		04...	0950 2.00	2810	7.3	31.0	7.9
TRANSPARENCY (SECCHI DISC) (FEET):	8.5	04...	0951 4.00	2810	7.3	31.0	7.8
		04...	0952 6.00	2810	7.1	31.0	7.8
		04...	0953 7.00	2840	7.0	30.0	10.1
COLOR:	DARK GREEN	04...	0954 8.00	3100	6.4	28.5	--
		04...	0955 9.00	3190	6.4	24.5	16.5
VEGETATION:	BRUSH	04...	0956 10.0	3220	6.2	21.5	6.8
		04...	0957 11.0	3260	6.3	20.5	1.4
AIR TEMPERATURE (DEG C):	31.0	04...	0958 12.0	3330	6.3	17.5	.4
		04...	0959 14.0	3370	6.4	14.5	.2
REMARKS:	SHORT STEEP SPOIL BANKS, SOME EXPOSED AREAS. OUTLET PRESENT.	04...	1000 16.0	3400	6.4	13.5	.2
		04...	1001 18.0	3500	6.4	13.5	.1
		04...	1002 20.0	3590	6.3	13.5	.1
		04...	1003 22.0	3630	6.3	13.0	.0
		04...	1004 24.0	3670	6.3	13.0	.0
		04...	1005 26.0	3740	6.3	13.0	.0
		04...	1006 28.0	3840	6.3	13.0	.0
		04...	1007 30.0	3930	6.4	12.5	.0
		04...	1008 32.0	4040	6.4	12.5	.0
		04...	1009 34.0	4090	6.5	12.5	.0
		04...	1010 36.0	4140	6.5	12.5	.0
		04...	1011 38.0	4250	6.5	12.0	.0
		04...	1012 40.0	4380	6.5	12.0	.0
		04...	1013 42.0	4420	6.6	12.0	.0
		04...	1014 44.0	4450	6.6	12.0	.0
		04...	1015 46.0	4480	6.6	12.0	.0
		04...	1016 48.0	4510	6.6	12.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 31 - DE SOTO QUADRANGLE (FIG. 6)

STATION ID:		374802089082501					
LAKE LAT-LONG:		374752 0890811					
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR BLAIRSVILLE, IL			Spec- ific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
LAKE SIZE (ACRES):	27.2	Date	Time	Sam- pling depth (feet)			
MAXIMUM DEPTH (FEET):	60.0						
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	0.34						
TRANSPARENCY (SECCHI DISC) (FEET):	15.7						
COLOR:	DARK GREEN						
VEGETATION:	WOODS, BRUSH						
AIR TEMPERATURE (DEG C):	32.0						
REMARKS: SHEER ROCK HIGHWALL, STEEP SPOIL BANKS, WITH A FEW EXPOSED.							
		July					
		29...	1134	.00	2370	7.6	31.5
		29...	1135	2.00	2380	7.7	31.0
		29...	1136	4.00	2380	7.7	31.0
		29...	1137	6.00	2380	7.8	31.0
		29...	1138	8.00	2390	7.7	31.0
		29...	1139	10.0	2580	7.4	29.5
		29...	1140	12.0	2650	7.4	27.0
		29...	1141	14.0	2700	7.5	23.5
		29...	1142	16.0	2710	7.6	20.5
		29...	1143	18.0	2730	7.5	18.0
		29...	1144	20.0	2730	7.5	16.0
		29...	1145	22.0	2740	7.5	14.5
		29...	1146	24.0	2740	7.6	13.0
		29...	1147	26.0	2730	7.6	12.0
		29...	1148	28.0	2730	7.6	11.5
		29...	1149	30.0	2750	7.6	10.5
		29...	1150	32.0	2780	7.2	10.5
		29...	1151	34.0	2850	7.0	10.5
		29...	1152	36.0	2940	6.9	10.5
		29...	1153	38.0	3170	6.7	10.5
		29...	1154	40.0	3840	6.4	11.0
		29...	1155	42.0	3980	6.4	10.0
		29...	1156	44.0	4050	6.3	10.0
		29...	1157	46.0	4210	6.4	9.5
		29...	1158	48.0	4250	6.4	9.5
		29...	1159	50.0	4250	6.4	9.0
		29...	1200	52.0	4260	6.4	9.0
		29...	1201	54.0	4260	6.4	9.0
		29...	1202	56.0	4280	6.4	9.0
		29...	1203	58.0	4300	6.5	9.5
		29...	1204	59.0	4330	6.5	9.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 32 - DE SOTO QUADRANGLE (FIG. 6)

STATION ID:	374956089141001							
LAKE LAT-LONG:	374953 0891409							
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR DE SOTO, IL							
LAKE SIZE (ACRES):	14.1	Time	Sam-	Spe-	pH	Temper-	Oxygen,	
MAXIMUM DEPTH (FEET):	45.0	Date	pling depth (feet)	con- duct- ance ( $\mu$ s/cm)	(stand- ard units)	ature ( $^{\circ}$ C)	dissolved gas (mg/L)	
MAXIMUM WIDTH (MILES):	0.09	July						
MAXIMUM LENGTH (MILES):	0.53	28...	0927	.00	2990	7.2	30.5	9.8
TRANSPARENCY (SECCHI DISC) (FEET):	9.8	28...	0928	2.00	3000	7.2	30.5	9.4
COLOR:	DARK GREEN	28...	0929	4.00	3000	7.2	30.5	9.2
VEGETATION:	GRASSES	28...	0930	6.00	3000	7.2	30.5	9.1
AIR TEMPERATURE ( $^{\circ}$ DEG C):	31.0	28...	0931	8.00	3000	7.2	30.5	9.1
REMARKS:	SHORT, STEEP SPOIL.	28...	0932	10.0	3260	6.4	26.5	18.5
		28...	0933	12.0	3290	6.3	23.0	13.3
		28...	0934	14.0	3300	6.4	18.0	.7
		28...	0935	16.0	3280	6.3	15.5	.4
		28...	0936	18.0	3290	6.3	14.0	.2
		28...	0937	20.0	3290	6.3	13.5	.2
		28...	0938	22.0	3300	6.3	13.0	.1
		28...	0939	24.0	3310	6.3	13.0	.1
		28...	0940	26.0	3330	6.2	12.5	.1
		28...	0941	28.0	3360	6.2	12.5	.1
		28...	0942	30.0	3380	6.2	12.5	.0
		28...	0943	32.0	3380	6.2	12.0	.0
		28...	0944	34.0	3380	6.2	11.0	.0
		28...	0945	36.0	3390	6.3	11.0	.0
		28...	0946	38.0	3390	6.3	10.5	.0
		28...	0947	40.0	3390	6.3	10.5	.0
		28...	0948	42.0	3400	6.3	10.0	.0
		28...	0949	44.0	3400	6.3	10.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 33 - DE SOTO AND MURPHYSBORO QUADRANGLES (FIGS. 6, 13)

STATION ID:	375043089143101						
LAKE LAT-LONG:	375015 0891525						
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR DE SOTO, IL						
LAKE SIZE (ACRES):	48.8	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	59.0	Date					
MAXIMUM WIDTH (MILES):	0.12		July				
MAXIMUM LENGTH (MILES):	0.62	26...	1442	.00	7.3	31.5	8.3
		26...	1443	2.00	7.3	31.5	8.1
TRANSPARENCY (SECCHI DISC) (FEET):	10.2	26...	1444	4.00	7.3	31.0	7.7
		26...	1445	6.00	7.3	31.0	7.9
		26...	1446	8.00	7.3	31.0	7.2
COLOR:	DARK GREEN	26...	1447	10.0	7.4	29.5	13.5
VEGETATION:	WOODS	26...	1448	12.0	6.5	25.5	14.6
AIR TEMPERATURE (DEG C):	32.0	26...	1449	14.0	6.4	22.0	14.1
REMARKS:	IRREGULAR BOTTOM. MUCH AQUATIC VEGETATION.	26...	1450	16.0	6.4	20.0	11.7
		26...	1451	18.0	6.4	18.5	10.4
		26...	1452	20.0	6.3	17.5	9.4
		26...	1453	22.0	6.3	16.0	8.4
		26...	1454	24.0	6.3	15.5	6.5
		26...	1455	26.0	6.3	14.5	5.7
		26...	1456	28.0	6.3	13.5	4.5
		26...	1457	30.0	6.3	12.5	3.0
		26...	1458	32.0	6.3	12.0	2.4
		26...	1459	34.0	6.3	11.5	1.2
		26...	1500	36.0	6.3	11.0	.4
		26...	1501	38.0	6.3	10.5	.0
		26...	1502	40.0	6.3	10.5	.0
		26...	1503	42.0	6.3	10.0	.0
		26...	1504	44.0	6.3	10.0	.0
		26...	1505	46.0	6.3	10.0	.0
		26...	1506	48.0	6.3	10.0	.0
		26...	1507	50.0	6.4	10.5	.0
		26...	1508	52.0	6.4	10.5	.0
		26...	1509	54.0	6.6	10.5	.0
		26...	1510	56.0	6.6	10.5	.0
		26...	1511	58.0	6.6	10.5	.2

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 34 - MURPHYSBORO QUADRANGLE (FIG. 13)

STATION ID:	375046089154401						
LAKE LAT-LONG:	375024 0891547						
LAKE NAME:	UNNAMED LAKE NO. 5 NEAR DE SOTO, IL						
LAKE SIZE (ACRES):	14.6						
MAXIMUM DEPTH (FEET):	42.0						
MAXIMUM WIDTH (MILES):	0.16						
MAXIMUM LENGTH (MILES):	0.67						
TRANSPARENCY (SECCHI DISC) (FEET):	10.5						
COLOR:	GREEN TO DARK GREEN						
VEGETATION:	WOODS						
AIR TEMPERATURE (DEG C):	31.5						
REMARKS:	BEAVERS PRESENT.						
		July					
	26...	1115	.00	949	7.4	31.0	7.2
	26...	1116	2.00	948	7.2	31.0	7.2
	26...	1117	4.00	951	7.2	31.0	7.0
	26...	1118	6.00	953	7.1	30.5	7.1
	26...	1119	8.00	957	7.0	30.5	7.1
	26...	1120	10.0	990	6.9	30.5	7.3
	26...	1121	12.0	1110	6.5	27.0	10.9
	26...	1122	14.0	1170	6.3	24.0	12.1
	26...	1123	16.0	1200	6.3	20.0	11.4
	26...	1124	18.0	1200	6.3	17.5	11.2
	26...	1125	20.0	1210	6.3	16.0	11.0
	26...	1126	22.0	1230	6.2	15.0	10.7
	26...	1127	24.0	1240	6.1	14.0	9.9
	26...	1128	26.0	1260	6.1	13.0	12.2
	26...	1129	28.0	1280	6.1	12.5	--
	26...	1130	30.0	1320	6.1	12.0	--
	26...	1131	32.0	1430	6.3	11.5	--
	26...	1132	34.0	1800	6.6	11.5	--
	26...	1133	36.0	2250	7.1	11.0	--
	26...	1134	38.0	2580	7.1	11.0	--
	26...	1135	40.0	2730	6.7	10.5	--
	26...	1136	41.0	3200	6.9	10.5	--

## LAKE NO. 35 - MURPHYSBORO QUADRANGLE (FIG. 13)

STATION ID:	375058089152001						
LAKE LAT-LONG:	375027 0891541						
LAKE NAME:	UNNAMED LAKE NO. 4 NEAR DE SOTO, IL						
LAKE SIZE (ACRES):	15.5						
MAXIMUM DEPTH (FEET):	35.0						
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	0.51						
TRANSPARENCY (SECCHI DISC) (FEET):	8.8						
COLOR:	DARK GREEN TO BROWN						
VEGETATION:	WOODS						
REMARKS:	IRREGULAR SHORELINE.						
		July					
	26...	1240	.00	792	7.6	32.0	6.7
	26...	1241	2.00	793	7.7	31.0	6.5
	26...	1242	4.00	795	7.7	31.0	6.2
	26...	1243	6.00	794	7.7	30.5	5.9
	26...	1244	8.00	796	7.6	30.5	5.5
	26...	1245	10.0	817	7.3	29.5	2.2
	26...	1246	12.0	823	7.2	26.0	.9
	26...	1247	14.0	832	7.1	21.5	.6
	26...	1248	16.0	833	7.1	18.5	1.2
	26...	1249	18.0	827	7.1	16.0	.7
	26...	1250	20.0	823	7.1	13.5	.4
	26...	1251	22.0	824	7.1	12.5	.3
	26...	1252	24.0	831	7.2	11.0	.3
	26...	1253	26.0	840	7.4	10.5	.3
	26...	1254	28.0	843	7.5	10.0	.2
	26...	1255	30.0	858	7.7	9.0	.2
	26...	1256	32.0	900	7.4	9.0	.2
	26...	1257	34.0	929	7.1	8.5	.2

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 36 - DE SOTO AND MURPHYSBORO QUADRANGLES (FIGS. 6, 13)

STATION ID:	375109089144901						
LAKE LAT-LONG:	375058 0891432						
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR DE SOTO, IL						
LAKE SIZE (ACRES):	54.8	Time	Sam- pling depth (feet)	Spec- ific con- duct- ance ( $\mu$ s/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	65.0	Date					
MAXIMUM WIDTH (MILES):	0.17						
MAXIMUM LENGTH (MILES):	1.60	July					
	26...	1602	.00	1900	7.6	32.0	7.4
	26...	1603	2.00	1890	7.7	32.0	7.3
TRANSPARENCY (SECCHI DISC) (FEET):	11.2	26...	4.00	1890	7.4	32.0	7.2
	26...	1604	6.00	1900	7.4	31.5	7.4
	26...	1605	8.00	1910	7.6	31.0	7.4
COLOR:	DARK GREEN	26...	1606	10.0	1920	7.5	31.0
		26...	1607	12.0	2390	7.7	27.5
VEGETATION:	WOODS, GRASSES	26...	1608	14.0	2440	7.8	23.5
		26...	1609	16.0	2480	7.1	20.5
AIR TEMPERATURE (DEG C):	31.0	26...	1610	18.0	2480	7.1	18.0
		26...	1611	20.0	2520	7.3	16.0
REMARKS: FAIRLY REGULAR SHORELINE. SOME FLOODED DEAD TIMBER.		26...	1612	22.0	2530	7.3	14.5
		26...	1613	24.0	2600	7.3	13.0
		26...	1614	26.0	2760	7.3	12.5
		26...	1615	28.0	2830	7.4	11.5
		26...	1616	30.0	2860	7.7	11.0
		26...	1617	32.0	2930	7.8	10.5
		26...	1618	34.0	2950	7.7	10.5
		26...	1619	36.0	2960	7.9	10.0
		26...	1620	38.0	3060	8.0	10.5
		26...	1621	40.0	3090	7.8	10.0
		26...	1622	42.0	3090	7.3	9.5
		26...	1623	44.0	3150	7.4	9.0
		26...	1624	46.0	3180	7.5	9.0
		26...	1625	48.0	3200	7.3	9.0
		26...	1626	50.0	3240	7.4	8.5
		26...	1627	52.0	3390	7.5	8.5
		26...	1628	54.0	3640	7.6	9.0
		26...	1629	56.0	3820	7.6	9.0
		26...	1630	58.0	3860	7.8	9.0
		26...	1631	60.0	3870	8.0	9.0
		26...	1632	62.0	3870	8.3	9.5
		26...	1633				--

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 37 - MURPHYSBORO AND VERGENNES QUADRANGLES (FIGS. 13, 18)

STATION ID:	375243089165601						
LAKE LAT-LONG:	375246 0891650						
LAKE NAME:	UNNAMED LAKE NO. 6 NEAR ELKVILLE, IL						
LAKE SIZE (ACRES):	24.5			Spec- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	45.0	Date	Time	sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.09						
MAXIMUM LENGTH (MILES):	0.74						
TRANSPARENCY (SECCHI DISC) (FEET):	3.6						
COLOR: DARK GREEN TO BROWN, LIGHTER GREEN TO SOUTH END.							
VEGETATION: WOODS, GRASSES							
AIR TEMPERATURE (DEG C):	28.5						
REMARKS: SHORT STEEP HIGHWALL, WITH SOME GENTLE SLOPES. OUTLET PRESENT.							
		July					
	26...	0934	.00	2060	7.0	30.0	8.0
	26...	0935	2.00	2070	7.2	30.0	6.9
	26...	0936	4.00	2070	7.3	30.0	6.6
	26...	0937	6.00	2070	7.4	29.5	6.2
	26...	0938	8.00	2070	7.4	29.5	5.7
	26...	0939	10.0	2060	7.3	28.0	3.1
	26...	0940	12.0	2030	7.2	25.0	1.5
	26...	0941	14.0	1990	7.2	22.0	.6
	26...	0942	16.0	1980	7.2	18.0	.8
	26...	0943	18.0	2000	7.2	16.5	1.1
	26...	0944	20.0	2040	7.2	14.5	1.4
	26...	0945	22.0	2070	7.3	13.0	1.4
	26...	0946	24.0	2110	7.3	11.5	1.2
	26...	0947	26.0	2120	7.3	11.0	.8
	26...	0948	28.0	2130	7.3	10.5	.5
	26...	0949	30.0	2150	7.3	10.0	.4
	26...	0950	32.0	2170	7.3	10.0	.3
	26...	0951	34.0	2180	7.2	10.0	.3
	26...	0952	36.0	2190	7.2	10.0	.3
	26...	0953	38.0	2220	7.2	10.0	.3
	26...	0954	40.0	2270	7.2	10.0	.2
	26...	0955	42.0	2370	7.1	9.5	.2
	26...	0956	44.0	2450	7.1	9.5	.2

## LAKE NO. 38 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375300089155301						
LAKE LAT-LONG:	375242 0891553						
LAKE NAME:	UNNAMED LAKE NO. 7 NEAR ELKVILLE, IL						
LAKE SIZE (ACRES):	10.4			Spec- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	15.0	Date	Time	sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	0.43						
TRANSPARENCY (SECCHI DISC) (FEET):	2.3						
COLOR: DARK BROWN							
VEGETATION: WOODS							
AIR TEMPERATURE (DEG C):	32.0						
REMARKS: SHALLOW LAKE, SOFT BOTTOM.							
		July					
	27...	1558	.00	2730	7.5	33.5	9.4
	27...	1559	1.00	2740	7.6	33.0	9.2
	27...	1600	2.00	2740	7.5	32.5	8.6
	27...	1601	3.00	2740	7.6	31.0	7.0
	27...	1602	4.00	2760	7.3	29.0	1.7
	27...	1603	5.00	2770	7.2	29.0	.7
	27...	1604	6.00	2790	7.2	28.5	.5
	27...	1605	7.00	2790	7.2	25.0	.4
	27...	1606	8.00	2790	7.2	24.0	.4
	27...	1607	9.00	2780	7.3	22.5	.3
	27...	1608	10.0	2800	7.3	21.5	.3
	27...	1609	11.0	2820	7.4	20.0	.3
	27...	1610	12.0	2860	7.4	18.5	.3
	27...	1611	13.0	2870	7.4	17.5	.3
	27...	1612	14.0	2880	7.5	16.5	.3

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 39 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375310089162101						
LAKE LAT-LONG:	375307 0891612						
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR ELKVILLE, IL						
LAKE SIZE (ACRES):	16.1	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	45.0	Date					
MAXIMUM WIDTH (MILES):	0.09						
MAXIMUM LENGTH (MILES):	0.51	July					
TRANSPARENCY (SECCHI DISC) (FEET):	8.8	28...	1335 .00	2550	7.6	31.5	7.6
COLOR:	DARK GREEN TO BROWN	28...	1336 2.00	2550	7.7	31.0	7.2
VEGETATION:	WOODS, GRASSES	28...	1337 4.00	2550	7.7	31.0	7.2
AIR TEMPERATURE (DEG C):	34.0	28...	1338 6.00	2560	7.7	30.5	6.8
REMARKS:	EVEN TO IRREGULAR SHORELINE.	28...	1339 8.00	2570	7.6	30.5	7.0
		28...	1340 10.0	2600	7.2	29.0	7.8
		28...	1341 12.0	2620	7.0	26.5	7.0
		28...	1342 14.0	2620	6.8	24.0	5.3
		28...	1343 16.0	2650	6.7	20.0	3.4
		28...	1344 18.0	2690	6.6	16.5	1.9
		28...	1345 20.0	2690	6.6	14.0	.9
		28...	1346 22.0	2700	6.7	12.5	.2
		28...	1347 24.0	2710	6.8	11.5	.1
		28...	1348 26.0	2700	7.0	10.0	.0
		28...	1349 28.0	2700	7.0	9.0	.0
		28...	1350 30.0	2710	6.9	8.0	.0
		28...	1351 32.0	2710	6.9	7.5	.0
		28...	1352 34.0	2720	6.9	7.0	.0
		28...	1353 36.0	2710	6.8	7.0	.0
		28...	1354 38.0	2720	6.8	7.0	.0
		28...	1355 40.0	2710	6.8	7.0	.0
		28...	1356 42.0	2710	6.7	7.0	.0
		28...	1357 44.0	2720	6.7	7.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 40 - VERGENNES QUADRANGLE (FIG. 1S)

STATION ID:	375331089171801						
LAKE LAT-LONG:	375254 0891737						
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR ELKVILLE, IL						
LAKE SIZE (ACRES):	97.7	Time	Sam-	Spe-	pH	Oxygen,	
MAXIMUM DEPTH (FEET):	52.0	Date	pling depth (feet)	cific con- duct- ance ( $\mu\text{S}/\text{cm}$ )	(stand- ard units)	Temper- ature (deg C)	dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.08	July					
MAXIMUM LENGTH (MILES):	1.53	27...	1304	.00	2220	7.7	31.5
TRANSPARENCY (SECCHI DISC) (FEET):	10.8	27...	1305	2.00	2230	7.6	31.5
COLOR:	DARK GREEN	27...	1306	4.00	2240	7.5	31.0
VEGETATION:	WOODS, BRUSH	27...	1307	6.00	2240	7.5	31.0
AIR TEMPERATURE (DEG C):	36.0	27...	1308	8.00	2240	7.5	31.0
REMARKS:	STEEP IRREGULAR SPOIL. MUCH AQUATIC VEGETATION.	27...	1309	10.0	2490	7.3	29.5
		27...	1310	12.0	2600	7.0	26.0
		27...	1311	14.0	2700	6.9	22.0
		27...	1312	16.0	2780	6.9	19.5
		27...	1313	18.0	2900	7.0	17.0
		27...	1314	20.0	2940	7.0	15.5
		27...	1315	22.0	2980	7.0	14.5
		27...	1316	24.0	3000	7.0	13.5
		27...	1317	26.0	3010	7.0	12.5
		27...	1318	28.0	3090	7.0	12.0
		27...	1319	30.0	3130	7.0	11.5
		27...	1320	32.0	3210	7.0	11.5
		27...	1321	34.0	3360	6.9	11.0
		27...	1322	36.0	3590	6.9	11.0
		27...	1323	38.0	3870	6.8	11.0
		27...	1324	40.0	4100	6.8	10.5
		27...	1325	42.0	4180	6.9	10.5
		27...	1326	44.0	4210	6.9	10.5
		27...	1327	46.0	4330	7.0	10.5
		27...	1328	48.0	4580	7.1	10.5
		27...	1329	50.0	4600	7.2	10.5
		27...	1330	51.0	4610	7.2	10.5

Table 2.--site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 41 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:		375351089160301					
LAKE LAT-LONG:		375336 0891549					
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 4 NEAR ELKVILLE, IL	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
LAKE SIZE (ACRES):	30.2	Date					
MAXIMUM DEPTH (FEET):	62.0						
MAXIMUM WIDTH (MILES):	0.09						
MAXIMUM LENGTH (MILES):	0.69	July					
		28...	1504	.00	1950	7.6	31.5
		28...	1505	2.00	1960	7.8	31.5
TRANSPARENCY (SECCHI DISC) (FEET):	9.2	28...	1506	4.00	1960	7.8	31.5
		28...	1507	6.00	1960	7.9	31.0
		28...	1508	8.00	1960	7.9	31.0
COLOR:	GREEN	28...	1509	10.0	1960	7.8	30.5
		28...	1510	12.0	2090	7.1	28.5
VEGETATION:	GRASSES	28...	1511	14.0	2280	7.1	25.5
		28...	1512	16.0	2370	7.1	21.0
AIR TEMPERATURE (DEG C):	38.0	28...	1513	18.0	2370	7.1	18.5
		28...	1514	20.0	2410	7.0	16.5
REMARKS:	GENTLE TO STEEP SHORE. FAIRLY NEW LAKE.	28...	1515	22.0	2450	6.9	15.0
		28...	1516	24.0	2500	6.7	14.5
		28...	1517	26.0	2570	6.6	13.5
		28...	1518	28.0	2650	6.5	13.0
		28...	1519	30.0	2720	6.4	13.0
		28...	1520	32.0	2800	6.4	12.5
		28...	1521	34.0	2920	6.3	12.5
		28...	1522	36.0	3080	6.3	12.0
		28...	1523	38.0	3360	6.2	12.0
		28...	1524	40.0	3710	6.1	12.0
		28...	1525	42.0	3880	6.1	11.5
		28...	1526	44.0	3980	6.1	11.5
		28...	1527	46.0	4070	6.1	11.0
		28...	1528	48.0	4140	6.2	11.0
		28...	1529	50.0	4190	6.2	10.5
		28...	1530	52.0	4210	6.2	10.5
		28...	1531	54.0	4220	6.2	10.5
		28...	1532	56.0	4220	6.3	10.5
		28...	1533	58.0	4240	6.3	10.5
		28...	1534	60.0	4230	6.3	10.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 42 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:		375352089151501					
LAKE LAT-LONG:		375310 0891558					
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR ELKVILLE, IL						
LAKE SIZE (ACRES):	58.3						
MAXIMUM DEPTH (FEET):	62.0						
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	1.62	July					
	28...	1217	.00	2800	7.7	31.5	7.5
	28...	1218	2.00	2850	7.7	31.0	7.5
TRANSPARENCY (SECCHI DISC) (FEET):	9.2	28...	1219	4.00	2860	7.8	31.0
	28...	1220	6.00	2860	7.7	31.0	7.3
	28...	1221	8.00	2860	7.7	31.0	7.2
COLOR:	GREEN	28...	1222	10.0	2860	7.7	30.5
	28...	1223	12.0	2950	7.2	29.0	8.8
VEGETATION:	GRASSES	28...	1224	14.0	3040	7.0	26.0
AIR TEMPERATURE (DEG C):	33.0	28...	1225	16.0	3140	6.8	22.5
	28...	1226	18.0	3180	6.7	20.0	9.0
	28...	1227	20.0	3210	6.7	17.5	7.9
REMARKS:	SOME EXPOSED SPOIL, HIGHWALL EXPOSED AND ERODING.	28...	1228	22.0	3220	6.6	15.5
	28...	1229	24.0	3230	6.6	14.5	6.6
	28...	1230	26.0	3240	6.5	13.5	5.7
	28...	1231	28.0	3250	6.5	13.0	4.3
	28...	1232	30.0	3280	6.5	12.5	3.2
	28...	1233	32.0	3290	6.4	12.5	2.4
	28...	1234	34.0	3320	6.5	12.0	1.6
	28...	1235	36.0	3350	6.5	12.0	1.1
	28...	1236	38.0	3390	6.4	11.5	.6
	28...	1237	40.0	3420	6.4	11.5	.3
	28...	1238	42.0	3440	6.4	11.5	.0
	28...	1239	44.0	3470	6.4	11.0	.0
	28...	1240	46.0	3520	6.3	11.0	.0
	28...	1241	48.0	3570	6.3	11.0	.0
	28...	1242	50.0	3600	6.3	11.0	.0
	28...	1243	52.0	3640	6.3	11.0	.0
	28...	1244	54.0	3670	6.3	11.0	.0
	28...	1245	56.0	3690	6.3	11.0	.0
	28...	1246	58.0	3740	6.3	11.0	.0
	28...	1247	60.0	3780	6.4	10.5	.0
	28...	1248	61.0	3870	6.4	10.5	.0

Table 2--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 43 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:							
LAKE NAME: UNNAMED LAKE NO. 5 NEAR ELKVILLE, IL							
LAKE SIZE (ACRES):	17.6	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	37.0						
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	0.85						
TRANSPARENCY (SECCHI DISC) (FEET):	7.9						
COLOR:	GREEN	July					
	.	27...	1429	.00	2430	7.7	32.0
	.	27...	1430	2.00	2440	7.6	32.0
VEGETATION:	GRASSES	27...	1431	4.00	2440	7.5	31.5
AIR TEMPERATURE (DEG C):	34.5	27...	1432	6.00	2450	7.5	30.5
REMARKS:	STEEP SPOIL BANKS.	27...	1433	8.00	2730	7.1	29.5
		27...	1434	10.0	2910	6.8	25.5
		27...	1435	12.0	2960	6.8	22.0
		27...	1436	14.0	2990	6.9	19.5
		27...	1437	16.0	3040	6.9	17.5
		27...	1438	18.0	3140	7.0	16.0
		27...	1439	20.0	3270	7.0	15.0
		27...	1440	22.0	3430	6.8	14.0
		27...	1441	24.0	3600	6.9	13.5
		27...	1442	26.0	3730	6.9	13.5
		27...	1443	28.0	3810	6.9	13.5
		27...	1444	30.0	3840	6.9	13.0
		27...	1445	32.0	4000	6.9	13.0
		27...	1446	34.0	4330	7.0	12.0
		27...	1447	36.0	4470	7.1	11.5

## LAKE NO. 44 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:							
LAKE NAME: UNNAMED LAKE NO. 38 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	18.7	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	35.0						
MAXIMUM WIDTH (MILES):	0.09						
MAXIMUM LENGTH (MILES):	0.31						
TRANSPARENCY (SECCHI DISC) (FEET):	9.8						
COLOR:	DARK GREEN	Aug.					
	.	02...	1425	.00	618	8.3	32.5
	.	02...	1426	2.00	618	8.6	32.0
VEGETATION:	WOODS	02...	1427	4.00	621	8.6	31.5
AIR TEMPERATURE (DEG C):	33.0	02...	1428	6.00	621	8.7	31.5
REMARKS:	MUCH ALGAE. IRREGULAR SHORELINE. VERY UNEVEN BOTTOM.	02...	1429	8.00	675	8.3	30.5
		02...	1430	10.0	884	7.7	24.5
		02...	1431	12.0	1050	7.4	21.0
		02...	1432	14.0	1640	6.8	15.5
		02...	1433	16.0	2250	6.6	13.5
		02...	1434	18.0	2540	6.5	12.0
		02...	1435	20.0	2680	6.5	11.5
		02...	1436	22.0	2730	6.4	11.0
		02...	1437	24.0	2800	6.4	11.0
		02...	1438	26.0	2850	6.4	11.0
		02...	1439	28.0	2860	6.5	11.0
		02...	1440	30.0	2890	6.5	11.0
		02...	1441	32.0	2940	6.4	11.0
		02...	1442	34.0	2950	6.4	11.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 45 - WILLISVILLE QUADRANGLE (FIG. 19)

STATION ID:	375728089320901						
LAKE LAT-LONG:	375724 0893210						
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR DENMARK, IL						
LAKE SIZE (ACRES):	60.8						
Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ s/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
MAXIMUM DEPTH (FEET):	23.0						
MAXIMUM WIDTH (MILES):	0.26						
MAXIMUM LENGTH (MILES):	0.82						
TRANSPARENCY (SECCHI DISC) (FEET):	2.6						
COLOR:	DARK BROWN TO BLACK						
VEGETATION:	GRASSES						
REMARKS:	FRESH WATER LAKE FOR MINE OPERATION. OUTLET PRESENT.						
July							
20...	1018	.00	1000	8.7	31.0	7.6	
20...	1019	1.60	1000	8.7	31.0	7.3	
20...	1020	3.30	1000	8.7	31.0	7.3	
20...	1021	4.90	1000	8.6	31.0	7.2	
20...	1022	6.60	994	8.0	29.0	2.6	
20...	1023	8.20	964	7.6	27.0	.8	
20...	1024	9.80	968	7.5	26.0	.8	
20...	1025	11.5	966	7.4	25.5	.7	
20...	1026	13.1	968	7.3	25.0	.7	
20...	1027	14.8	970	7.3	25.0	.7	
20...	1028	16.4	971	7.3	25.0	.7	
20...	1029	18.0	971	7.2	24.5	.6	
20...	1030	19.7	973	7.2	24.5	.7	
20...	1031	21.3	974	7.2	24.5	.6	

## LAKE NO. 46 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375757089153501						
LAKE LAT-LONG:	375756 0891536						
LAKE NAME:	UNNAMED LAKE NO. 31 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	13.2						
Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ s/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
MAXIMUM DEPTH (FEET):	40.0						
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	0.51						
TRANSPARENCY (SECCHI DISC) (FEET):	11.2						
COLOR:	DARK GREEN						
VEGETATION:	WOODS						
AIR TEMPERATURE (DEG C):	39.0						
July							
21...	1517	.00	870	8.2	34.0	7.0	
21...	1518	2.00	866	8.2	33.5	6.9	
21...	1519	4.00	868	8.2	32.5	6.9	
21...	1520	6.00	869	8.2	32.0	6.9	
21...	1521	8.00	874	8.2	31.5	6.8	
21...	1522	10.0	903	8.0	30.5	6.7	
21...	1523	12.0	970	7.6	28.0	5.1	
21...	1524	14.0	1060	7.4	25.0	4.1	
21...	1525	16.0	1130	7.2	22.5	3.9	
21...	1526	18.0	1230	7.1	19.5	4.0	
21...	1527	20.0	1410	6.9	16.0	3.3	
21...	1528	22.0	1590	6.8	13.5	2.0	
21...	1529	24.0	1680	6.7	11.5	.9	
21...	1530	26.0	1830	6.5	10.5	.4	
21...	1531	28.0	1920	6.5	10.0	.3	
21...	1532	30.0	1960	6.4	10.0	.3	
21...	1533	32.0	2010	6.4	9.5	.2	
21...	1534	34.0	2040	6.3	9.5	.2	
21...	1535	36.0	2080	6.3	9.5	.1	
21...	1536	38.0	2140	6.5	9.0	.3	
21...	1537	39.0	2180	6.6	9.0	.6	



Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 49 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375905089155001	WATER-QUALITY DATA					
LAKE LAT-LONG:	375851 0891540						
<b>LAKE NAME: UNNAMED LAKE NO. 30 NEAR DU QUOIN, IL</b>							
LAKE SIZE (ACRES):	13.1	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	30.0						
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	0.59						
TRANSPARENCY (SECCHI DISC) (FEET):	8.8						
COLOR:	AQUA GREEN						
VEGETATION:	BRUSH						
AIR TEMPERATURE (DEG C):	36.5						
REMARKS: SHORT STEEP SPOIL BANKS. OUTLET PRESENT.							
July							
	18...	1550	.00	954	7.9	32.0	7.0
	18...	1551	1.60	954	7.9	32.0	6.9
	18...	1552	3.30	954	7.9	32.0	6.9
	18...	1553	4.90	955	7.9	30.5	7.0
	18...	1554	6.60	963	7.8	30.5	6.9
	18...	1555	8.20	963	7.4	29.0	6.9
	18...	1556	9.80	971	7.2	26.0	5.2
	18...	1557	11.5	979	7.1	24.0	3.8
	18...	1558	13.1	1010	7.0	20.5	1.9
	18...	1559	14.8	1080	7.0	18.0	1.5
	18...	1600	16.4	1160	7.0	16.0	1.1
	18...	1601	18.0	1310	7.0	14.5	1.1
	18...	1602	19.7	1460	7.0	14.0	1.1
	18...	1603	21.3	1670	7.0	12.5	1.1
	18...	1604	23.0	1830	7.0	12.5	1.1
	18...	1605	24.6	1960	7.0	12.0	1.1
	18...	1606	26.2	2260	7.0	11.5	1.2
	18...	1607	27.9	2520	7.0	11.0	1.2

## LAKE NO. 50 - DU QUOIN AND ELKVILLE QUADRANGLES (FIGS. 7, 8)

STATION ID:	375909089134401	WATER-QUALITY DATA					
LAKE LAT-LONG:	375906 0891345						
<b>LAKE NAME: UNNAMED LAKE NO. 2 AT DU QUOIN, IL</b>							
LAKE SIZE (ACRES):	35.7	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	37.0						
MAXIMUM WIDTH (MILES):	0.10						
MAXIMUM LENGTH (MILES):	1.34						
TRANSPARENCY (SECCHI DISC) (FEET):	4.3						
COLOR:	GREEN BROWN						
VEGETATION:	GRASSES						
AIR TEMPERATURE (DEG C):	31.0						
REMARKS: LITTLE SLOPE TO SPOIL.							
Aug.							
	01...	1248	.00	304	7.9	32.5	7.7
	01...	1249	2.00	306	8.0	32.0	7.5
	01...	1250	4.00	308	8.0	32.0	7.4
	01...	1251	6.00	308	7.9	32.0	7.2
	01...	1252	8.00	308	7.8	31.0	6.4
	01...	1253	10.0	320	7.2	28.5	.3
	01...	1254	12.0	325	7.1	26.5	.2
	01...	1255	14.0	336	7.0	22.5	.0
	01...	1256	16.0	341	7.0	20.5	.0
	01...	1257	18.0	346	7.0	18.5	.0
	01...	1258	20.0	353	7.1	17.0	.0
	01...	1259	22.0	358	7.1	16.0	.0
	01...	1300	24.0	363	7.1	15.5	.0
	01...	1301	26.0	367	7.1	14.5	.0
	01...	1302	28.0	372	7.1	14.5	.0
	01...	1303	30.0	377	7.2	14.0	.0
	01...	1304	32.0	380	7.2	13.5	.0
	01...	1305	34.0	382	7.2	13.5	.0
	01...	1306	36.0	388	7.2	13.5	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 51 - WILLISVILLE QUADRANGLE (FIG. 19)

STATION ID:	375923089342601						
LAKE LAT-LONG:	375904 0893421						
LAKE NAME:	UNNAMED LAKE NO. 2 NEAR WILLISVILLE, IL						
LAKE SIZE (ACRES):	31.1	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	60.0	Date					
MAXIMUM WIDTH (MILES):	0.09	June					
MAXIMUM LENGTH (MILES):	0.91	24...	1302 .00	2670	7.9	28.0	8.3
		24...	1303 2.00	2670	7.9	27.5	8.1
TRANSPARENCY (SECCHI DISC) (FEET):	10.5	24...	1304 4.00	2670	7.9	27.0	8.0
		24...	1305 6.00	2750	7.6	26.5	7.3
		24...	1306 8.00	2920	7.2	24.5	5.7
COLOR:	GREEN	24...	1307 10.0	3010	7.0	21.0	3.2
		24...	1308 12.0	3200	6.8	17.5	2.5
VEGETATION:	GRASSES	24...	1309 14.0	3390	6.7	15.5	2.0
		24...	1310 16.0	3590	6.6	14.0	1.1
REMARKS:	VERY STEEP HIGHWALLS, SOME ROCK OUTCROPS.	24...	1311 18.0	3700	6.5	13.5	.6
		24...	1312 20.0	3860	6.4	13.0	.4
		24...	1313 22.0	3920	6.4	12.5	.4
		24...	1314 24.0	3960	6.4	12.0	.4
		24...	1315 26.0	4030	6.3	12.0	.3
		24...	1316 28.0	4120	6.3	11.5	.3
		24...	1317 30.0	4200	6.3	11.0	.3
		24...	1318 32.0	4270	6.3	11.0	.3
		24...	1319 34.0	4330	6.3	11.0	.3
		24...	1320 36.0	4390	6.3	11.0	.3
		24...	1321 38.0	4430	6.3	11.0	.3
		24...	1322 40.0	4440	6.3	11.0	.3
		24...	1323 42.0	4500	6.3	10.5	.3
		24...	1324 44.0	4560	6.4	10.5	.3
		24...	1325 46.0	4600	6.4	10.5	.3
		24...	1326 48.0	4620	6.4	10.5	.3
		24...	1327 50.0	4650	6.4	10.0	.3
		24...	1328 52.0	4670	6.5	10.0	.3
		24...	1329 54.0	4690	6.5	10.0	.3
		24...	1330 56.0	4720	6.5	10.0	.3
		24...	1331 58.0	4730	6.5	10.0	.5
		24...	1332 59.0	4760	6.5	10.0	.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 52 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375924089200501						
LAKE LAT-LONG:	375926 0892006						
LAKE NAME:	UNNAMED LAKE NO. 36 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	22.8	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	15.0	Date					
MAXIMUM WIDTH (MILES):	0.10						
MAXIMUM LENGTH (MILES):	0.54	July					
TRANSPARENCY (SECCHI DISC) (FEET):	5.9	14...	1658 .00	3450	8.4	31.0	8.1
COLOR:	DARK GREEN	14...	1659 1.00	3360	8.3	30.5	8.1
VEGETATION:	WOODS, MARSHES	14...	1700 2.00	3400	8.1	28.0	8.7
AIR TEMPERATURE (DEG C):	34.5	14...	1701 3.00	3470	8.1	26.5	7.7
REMARKS:	VERY SHALLOW LAKE, USED FOR MINE OPERATIONS. OUTLET PRESENT.	14...	1702 4.00	3480	8.1	25.5	6.2
		14...	1703 5.00	3480	7.8	25.0	5.7
		14...	1704 6.00	3480	7.7	24.5	5.3
		14...	1705 7.00	3490	7.6	23.5	3.9
		14...	1706 8.00	3490	7.4	23.0	1.0
		14...	1707 9.00	3470	7.3	22.0	0.0
		14...	1708 10.0	3470	7.2	20.5	0.0
		14...	1709 11.0	3460	7.2	19.0	0.0
		14...	1710 12.0	3430	7.2	18.0	0.0
		14...	1711 13.0	3430	7.3	17.0	0.0
		14...	1712 14.0	3430	7.3	16.5	0.0

## LAKE NO. 53 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375925089155801						
LAKE LAT-LONG:	375910 0891600						
LAKE NAME:	UNNAMED LAKE NO. 32 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	15.9	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	22.0	Date					
MAXIMUM WIDTH (MILES):	0.08						
MAXIMUM LENGTH (MILES):	0.47	July					
TRANSPARENCY (SECCHI DISC) (FEET):	8.2	21...	0835 .00	2820	7.2	31.0	8.3
COLOR:	BROWN TO GREEN	21...	0836 3.30	2850	7.5	31.5	8.2
VEGETATION:	WOODS, GRASSES	21...	0837 4.90	2860	7.6	31.0	8.3
AIR TEMPERATURE (DEG C):	30.5	21...	0838 6.60	2880	7.3	30.5	10.5
REMARKS:	STEEP SPOIL BANKS.	21...	0839 8.20	3090	6.7	27.0	14.3
		21...	0840 9.80	3170	6.6	24.0	12.3
		21...	0841 11.5	3250	6.5	21.0	10.6
		21...	0842 13.1	3300	6.5	19.0	9.4
		21...	0843 14.8	3390	6.5	18.0	13.1
		21...	0844 16.4	3450	6.4	16.5	9.3
		21...	0845 18.0	3530	6.4	15.5	8.5
		21...	0846 19.7	3590	6.3	15.0	5.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 54 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375925089195401	WATER-QUALITY DATA					
LAKE LAT-LONG:	375910 0891927						
LAKE NAME:	UNNAMED LAKE NO. 35 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	30.1	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	51.0						
MAXIMUM WIDTH (MILES):	0.09						
MAXIMUM LENGTH (MILES):	0.72						
TRANSPARENCY (SECCHI DISC) (FEET):	7.2						
COLOR:	DARK GREEN						
VEGETATION:	WOODS						
AIR TEMPERATURE (DEG C):	33.5						
REMARKS:	IRREGULAR SHORELINE, MANY TREES IN WATER. BEAVERS PRESENT.						
July							
	14...	1515	.00	3230	7.2	30.5	7.8
	14...	1516	2.00	3300	7.2	29.0	7.2
	14...	1517	4.00	3400	6.9	29.0	8.0
	14...	1518	6.00	3380	6.9	28.5	8.0
	14...	1519	8.00	3360	6.9	28.0	6.7
	14...	1520	10.0	3320	6.9	27.5	5.1
	14...	1521	12.0	3300	6.9	26.5	3.9
	14...	1522	14.0	3240	6.9	25.5	2.0
	14...	1523	16.0	3170	6.8	23.0	.7
	14...	1524	18.0	3100	6.8	19.5	.3
	14...	1525	20.0	3080	6.8	17.0	.4
	14...	1526	22.0	3050	6.8	14.5	1.1
	14...	1527	24.0	3040	6.9	13.0	4.8
	14...	1528	26.0	3090	6.8	11.0	5.6
	14...	1529	28.0	3110	6.8	10.5	5.1
	14...	1530	30.0	3100	6.8	9.5	4.0
	14...	1531	32.0	3120	6.8	9.0	2.9
	14...	1532	34.0	3130	6.7	9.0	2.0
	14...	1533	36.0	3150	6.7	9.0	1.2
	14...	1534	38.0	3170	6.7	9.0	1.0
	14...	1535	40.0	3360	6.5	9.0	1.3
	14...	1536	42.0	3630	6.5	8.5	1.9
	14...	1537	44.0	3640	6.4	8.5	2.4
	14...	1538	46.0	3640	6.4	8.5	2.7
	14...	1539	48.0	3670	6.5	8.5	2.2
	14...	1540	50.0	4070	6.5	8.5	.6

## LAKE NO. 55 - VERGENNES QUADRANGLE (FIG. 18)

STATION ID:	375940089180801	WATER-QUALITY DATA					
LAKE LAT-LONG:	375931 0891830						
LAKE NAME:	UNNAMED LAKE NO. 34 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	21.5	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	17.0						
MAXIMUM WIDTH (MILES):	0.04						
MAXIMUM LENGTH (MILES):	1.03						
TRANSPARENCY (SECCHI DISC) (FEET):	5.2						
COLOR:	DARK GREEN						
VEGETATION:	BRUSH, WOODS						
AIR TEMPERATURE (DEG C):	31.0						
REMARKS:	STEEP SPOIL BANKS.						
July							
	15...	1330	.00	3750	7.8	30.0	11.9
	15...	1331	1.00	3750	7.6	30.0	11.2
	15...	1332	2.00	3760	7.7	29.5	10.6
	15...	1333	3.00	3800	7.5	28.5	8.4
	15...	1334	4.00	3830	7.4	27.5	7.7
	15...	1335	5.00	3830	7.5	26.5	7.5
	15...	1336	6.00	3770	7.6	25.5	5.1
	15...	1337	7.00	3820	7.6	23.5	.0
	15...	1338	8.00	3900	7.5	22.5	.0
	15...	1339	9.00	3900	7.4	20.0	.0
	15...	1340	10.0	3890	7.2	18.0	.0
	15...	1341	11.0	3900	7.0	17.5	.0
	15...	1342	12.0	3920	6.9	16.0	.0
	15...	1343	13.0	3950	6.9	15.0	.0
	15...	1344	14.0	3990	6.8	14.0	.0
	15...	1345	15.0	4050	6.7	13.5	.0
	15...	1346	16.0	4100	6.7	13.5	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 56 - WILLISVILLE QUADRANGLE (FIG. 19)

STATION ID:	375947089342601					
LAKE LAT-LONG:	375938 0893432					
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR WILLISVILLE, IL					
LAKE SIZE (ACRES):	19.8					
MAXIMUM DEPTH (FEET):	51.0					
MAXIMUM WIDTH (MILES):	0.06					
MAXIMUM LENGTH (MILES):	0.69					
TRANSPARENCY (SECCHI DISC) (FEET):	6.0					
COLOR:	GREEN					
VEGETATION:	GRASSE8					
REMARKS:	VERY STEEP HIGHWALLS.					
Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
June						
24...	1217	.00	2870	7.9	28.5	8.7
24...	1218	2.00	2890	7.9	28.0	8.4
24...	1219	4.00	2910	7.9	28.0	8.3
24...	1220	6.00	2890	7.9	27.5	8.3
24...	1221	8.00	3600	7.6	26.0	9.0
24...	1222	10.0	3870	7.3	23.0	7.2
24...	1223	12.0	3920	7.2	21.0	5.5
24...	1224	14.0	3970	7.1	18.5	3.9
24...	1225	16.0	4030	7.1	16.5	2.3
24...	1226	18.0	4100	7.3	15.0	2.6
24...	1227	20.0	4130	7.2	13.5	1.2
24...	1228	22.0	4160	7.1	12.5	2.1
24...	1229	24.0	4160	7.1	12.0	1.0
24...	1230	26.0	4230	7.0	11.5	.8
24...	1231	28.0	4270	7.0	11.0	.6
24...	1232	30.0	4320	6.9	11.0	.5
24...	1233	32.0	4380	6.9	10.5	.4
24...	1234	34.0	4560	6.7	10.0	.4
24...	1235	36.0	4600	6.7	10.0	.3
24...	1236	38.0	4620	6.6	9.5	.3
24...	1237	40.0	4630	6.7	9.5	.3
24...	1238	42.0	4660	6.7	9.0	.2
24...	1239	44.0	4690	6.7	9.0	.3
24...	1240	46.0	4720	6.7	9.0	.3
24...	1241	48.0	4740	6.7	9.0	.3
24...	1242	50.0	4760	6.7	9.0	.3

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

LAKE NO. 57 - PINCKNEYVILLE AND VERGENNES QUADRANGLES (FIGS. 15, 18)

STATION ID:		375958089171401						
LAKE LAT-LONG:		375914 0891709						
WATER-QUALITY DATA								
LAKE NAME: UNNAMED LAKE NO. 33 NEAR DU QUOIN, IL								
LAKE SIZE (ACRES):	45.8							
MAXIMUM DEPTH (FEET):	44.0							
MAXIMUM WIDTH (MILES):	0.06							
		Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance (μS/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM LENGTH (MILES):		July						
TRANSPARENCY (SECCHI DISC) (FEET):		18...	1400	.00	3300	7.9	32.0	9.4
		18...	1401	1.60	3310	7.9	32.0	9.3
		18...	1402	3.30	3310	7.9	31.5	9.3
		18...	1403	4.90	3320	7.8	30.5	10.2
		18...	1404	6.60	3420	7.5	29.0	13.7
COLOR: BROWN-GREEN		18...	1405	8.20	3500	7.1	24.5	2.2
VEGETATION: GRASSES, WOODS		18...	1406	9.80	3560	7.0	22.0	1.0
AIR TEMPERATURE (DEG C):		18...	1407	11.5	3600	7.0	19.5	.8
REMARKS: STEEP TO GENTLY SLOPING SPOIL BANKS.		18...	1408	13.1	3590	7.1	17.0	.9
		18...	1409	14.8	3590	7.1	16.0	.9
		18...	1410	16.4	3580	7.2	14.5	.9
		18...	1411	18.0	3590	7.3	13.5	1.0
		18...	1412	19.7	3710	7.3	13.0	.9
		18...	1413	21.3	3820	7.2	12.5	1.0
		18...	1414	23.0	3860	7.2	12.5	.9
		18...	1415	24.6	3930	7.1	12.5	1.0
		18...	1416	26.2	4010	7.1	12.5	1.0
		18...	1417	27.9	4150	7.1	12.5	.9
		18...	1418	29.5	4460	7.0	12.5	.9
		18...	1419	31.2	5160	7.0	12.0	.9
		18...	1420	32.8	5420	6.9	12.0	.9
		18...	1421	34.4	5630	6.9	11.5	1.0
		18...	1422	36.1	5680	6.9	11.5	1.0
		18...	1423	37.7	5690	6.9	11.0	.9
		18...	1424	39.4	5700	7.0	10.5	1.0
		18...	1425	41.0	5720	7.0	10.0	1.0
		18...	1426	42.6	5800	7.1	10.0	1.0

Lake No. 58 - Pinckneyville Quadrangle (Fig. 15)

STATION ID:	380012089250101	WATER-QUALITY DATA							
LAKE LAT-LONG:	380013 0892436								
LAKE NAME:	UNNAMED LAKE NO. 13 NEAR PINCKNEYVILLE, IL								
LAKE SIZE (ACRES):	16.5		Spe- ci-fic con- duc-tiv- (stand- ard units)	pH	Oxida- tion reduc- tion poten- tial (mv)	Temper- ature (deg C)	Oxygen, dis- olved (mg/L)		
MAXIMUM DEPTH (FEET):	28.0	Time	Sam- pling depth (feet)	( $\mu$ S/cm)					
MAXIMUM WIDTH (MILES):	0.06	Date							
MAXIMUM LENGTH (MILES):	0.61	June							
TRANSPARENCY (SECCHI DISC) (FEET):	11.2	21...	1022	.00	1220	7.8	251	27.0	7.2
COLOR:	DARK GREEN	21...	1023	3.30	1220	7.9	245	27.0	7.3
VEGETATION:	WOODS	21...	1024	6.60	1220	7.8	243	26.5	7.1
REMARKS:	OUTLET PRESENT.	21...	1025	9.80	1250	7.6	247	24.0	7.5
		21...	1026	13.1	1290	7.5	247	19.5	8.5
		21...	1027	16.4	1340	7.5	245	16.0	7.9
		21...	1028	19.7	1370	7.5	244	13.5	6.9
		21...	1029	23.0	1400	7.4	245	12.5	5.6
		21...	1030	26.2	1510	7.4	245	12.0	4.4

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 59 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380017089193401						
LAKE LAT-LONG:	380011 0891909						
LAKE NAME:	UNNAMED LAKE NO. 6 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	13.2		Sam-	Spe-	pH	Oxygen,	
MAXIMUM DEPTH (FEET):	21.0	Time	pling	con-	(stand-	Temper-	diss-
MAXIMUM WIDTH (MILES):	0.05	Date	depth	duct-	ard	ature	solved
MAXIMUM LENGTH (MILES):	0.69		(feet)	ance	( $\mu$ S/cm)	(deg C)	(mg/L)
TRANSPARENCY (SECCHI DISC) (FEET):	11.8	July					
COLOR:	DARK GREEN	14...	0855	.00	2300	7.2	29.5
VEGETATION:	WOODS, BRUSH	14...	0856	2.00	2290	7.3	29.5
AIR TEMPERATURE: (DEG C):	29.5	14...	0857	4.00	2290	7.3	29.5
REMARKS:	IRREGULAR SHORELINE. MUCH ALGAE AND AQUATIC VEGETATION.	14...	0858	6.00	2300	7.2	29.5
		14...	0859	8.00	3050	6.4	28.5
		14...	0900	10.0	3310	6.2	24.5
		14...	0901	12.0	3420	6.1	19.5
		14...	0902	14.0	3540	6.2	17.0
		14...	0903	16.0	3590	6.2	16.0
		14...	0904	18.0	3640	6.1	15.5
		14...	0905	20.0	3690	6.1	.6

## LAKE NO. 60 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:	380023089241801						
LAKE LAT-LONG:	380015 0892423						
LAKE NAME:	BIG BEAVER LAKE NEAR PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	23.8		Sam-	Spe-	Oxida-		
MAXIMUM DEPTH (FEET):	30.0	Time	pling	con-	tion		
MAXIMUM WIDTH (MILES):	0.08	Date	depth	duct-	reduc-		
MAXIMUM LENGTH (MILES):	0.62		(feet)	ance	pH		
TRANSPARENCY (SECCHI DISC) (FEET):	4.6	June	( $\mu$ S/cm)	(stand-	poten-	Oxygen,	
REMARKS:	VERY IRREGULAR SHORELINE.	21...	1343	ard	tial	dis-	
		21...	1344	7.1	113	solved	
		21...	1345	7.7	116	(mg/L)	
		21...	1346	7.2	133		
		21...	1347	7.2	132		
		21...	1348	7.2	130		
		21...	1349	7.2	127		
		21...	1350	7.2	107		
		21...	1351	7.2	-65		
		21...	1352	7.2	-127		
		21...	1353	7.4	-155		

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 61 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380029089173601						
LAKE LAT-LONG:	380021 0891816						
LAKE NAME:	UNNAMED LAKE NO. 5 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	22.2	Time	Sam-	Spe-	pH	Oxygen,	
MAXIMUM DEPTH (FEET):	45.0	Date	pling depth (feet)	con- duct- ance ( $\mu$ S/cm)	(stand- ard units)	Temper- ature (deg C)	dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.08						
MAXIMUM LENGTH (MILES):	0.86	July					
TRANSPARENCY (SECCHI DISC) (FEET):	15.7	12...	1400 .00	3100	7.9	32.5	8.2
COLOR:	DARK GREEN	12...	1401 2.00	3110	7.9	30.5	8.3
VEGETATION:	WOODS, BRUSH	12...	1402 4.00	3110	7.9	30.0	8.2
AIR TEMPERATURE (DEG C):	36.5	12...	1403 6.00	3120	7.9	29.5	8.3
REMARKS:	IRREGULAR TO EVEN SHORELINE.	12...	1404 8.00	3120	7.8	29.5	7.9
		12...	1405 10.0	3490	7.3	27.0	13.2
		12...	1406 12.0	3620	7.0	23.5	15.9
		12...	1407 14.0	3700	6.7	20.5	16.6
		12...	1408 16.0	3740	6.7	18.0	15.2
		12...	1409 18.0	3840	6.6	17.0	14.7
		12...	1410 20.0	3840	6.5	15.0	12.1
		12...	1411 22.0	3910	6.4	14.0	9.3
		12...	1412 24.0	3950	6.4	13.0	6.1
		12...	1413 26.0	3990	6.3	12.5	2.4
		12...	1414 28.0	4050	6.3	12.0	1.7
		12...	1415 30.0	4070	6.3	11.5	.5
		12...	1416 32.0	4130	6.3	11.0	.5
		12...	1417 34.0	4180	6.3	10.5	.3
		12...	1418 36.0	4220	6.3	10.5	.2
		12...	1419 38.0	4270	6.3	10.0	.1
		12...	1420 40.0	4290	6.4	10.0	.1
		12...	1421 42.0	4310	6.4	10.0	.1
		12...	1422 44.0	4390	6.5	10.0	.1

## LAKE NO. 62 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:	380031089242201						
LAKE LAT-LONG:	380014 0892436						
LAKE NAME:	SPRING LAKE NEAR PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	.13.6	Time	Sam-	Spe-	Oxida-		
MAXIMUM DEPTH (FEET):	37.0	Date	pling depth (feet)	con- duct- ance ( $\mu$ S/cm)	pH	reduc-	
MAXIMUM WIDTH (MILES):	0.55					tion	
MAXIMUM LENGTH (MILES):	0.68	June				poten-	
TRANSPARENCY (SECCHI DISC) (FEET):	5.2	21...	1501 .00	2930	7.4	150	25.5
		21...	1502 3.30	2930	7.3	155	20.5
		21...	1503 6.60	2940	7.2	156	16.5
		21...	1504 9.80	2970	7.1	156	14.5
		21...	1505 13.1	2980	7.1	155	13.5
		21...	1506 16.4	2990	7.1	-58	13.0
		21...	1507 19.7	3020	7.1	-103	12.5
		21...	1508 23.0	3030	7.1	-125	12.0
		21...	1509 26.2	3030	7.1	-132	12.0
		21...	1510 29.5	3070	7.2	-143	11.5
		21...	1511 32.8	3110	7.2	-154	11.5
		21...	1512 36.1	3140	7.4	-169	11.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 63 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:		380041089181001						
LAKE LAT-LONG:		380032 0891715						
WATER-QUALITY DATA								
LAKE NAME:	UNNAMED LAKE NO. 8 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	30.8							
MAXIMUM DEPTH (FEET):	41.0							
MAXIMUM WIDTH (MILES):	0.05							
MAXIMUM LENGTH (MILES):	1.34	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)	
TRANSPARENCY (SECCHI DISC) (FEET):	7.2	July						
COLOR:	DARK GREEN	12...	1137	.00	3070	7.4	30.0	9.6
VEGETATION:	BRUSH, WOODS	12...	1138	2.00	3090	7.3	29.0	9.3
AIR TEMPERATURE (DEG C):	35.0	12...	1139	4.00	3120	7.3	29.0	9.5
REMARKS:	IRREGULAR TO EVEN SHORELINE. STEEP SPOIL BANKS.	12...	1140	6.00	3460	6.6	26.5	10.9
		12...	1141	8.00	3510	6.5	21.0	5.6
		12...	1142	10.0	3530	6.4	16.5	.5
		12...	1143	12.0	3590	6.4	14.5	.2
		12...	1144	14.0	3650	6.4	13.5	.2
		12...	1145	16.0	3820	6.4	13.0	.2
		12...	1146	18.0	3930	6.4	12.5	.1
		12...	1147	20.0	4070	6.3	12.5	.1
		12...	1148	22.0	4080	6.3	12.0	.1
		12...	1149	24.0	4110	6.3	11.5	.0
		12...	1150	26.0	4140	6.3	11.5	.0
		12...	1151	28.0	4160	6.3	11.0	.1
		12...	1152	30.0	4240	6.3	10.5	.0
		12...	1153	32.0	4250	6.3	10.5	.0
		12...	1154	34.0	4290	6.3	10.0	.0
		12...	1155	36.0	4340	6.3	10.0	.0
		12...	1156	38.0	4340	6.3	10.0	.0
		12...	1157	40.0	4350	6.3	10.0	.0

## LAKE NO. 64 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:		380045089153601						
LAKE LAT-LONG:		380040 0891537						
WATER-QUALITY DATA								
LAKE NAME:	UNNAMED LAKE NO. 10 AT DU QUOIN, IL							
LAKE SIZE (ACRES):	19.2							
MAXIMUM DEPTH (FEET):	38.0							
MAXIMUM WIDTH (MILES):	0.04							
MAXIMUM LENGTH (MILES):	0.84	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)	
TRANSPARENCY (SECCHI DISC) (FEET):	6.2	July						
COLOR:	AQUA GREEN	12...	0849	.00	646	8.2	29.0	8.5
VEGETATION:	GRASSES	12...	0850	2.00	647	8.1	29.0	7.8
AIR TEMPERATURE (DEG C):	29.5	12...	0851	4.00	647	8.1	29.0	7.6
REMARKS:	STEEP SPOIL BANKS.	12...	0852	6.00	647	8.0	28.5	7.3
		12...	0853	8.00	652	7.8	27.0	5.4
		12...	0854	10.0	664	7.6	25.5	2.5
		12...	0855	12.0	691	7.3	22.0	.1
		12...	0856	14.0	755	7.2	17.5	.0
		12...	0857	16.0	795	7.1	16.0	.0
		12...	0858	18.0	863	7.0	15.0	.0
		12...	0859	20.0	925	6.9	14.5	.0
		12...	0900	22.0	982	6.9	14.0	.0
		12...	0901	24.0	1240	6.8	13.5	.0
		12...	0902	26.0	1840	6.5	12.5	.0
		12...	0903	28.0	2410	6.4	12.0	.0
		12...	0904	30.0	2630	6.4	11.5	.0
		12...	0905	32.0	2720	6.4	11.5	.0
		12...	0906	34.0	2780	6.4	11.5	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 65 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380046089164301						
LAKE LAT-LONG:	380031 0891634						
LAKE NAME:	UNNAMED LAKE NO. 9 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	17.0			Sam-	Spe-		
MAXIMUM DEPTH (FEET):	26.0			pling	cific	pH	Oxygen,
MAXIMUM WIDTH (MILES):	0.04	Date	Time	depth	con-	(stand-	dis-
MAXIMUM LENGTH (MILES):	0.86			(feet)	duct-	ard	solved
TRANSPARENCY (SECCHI DISC) (FEET):	10.8				ance	units)	(mg/L)
COLOR:	DARK GREEN						
VEGETATION:	FERNS, BRUSH, WOODS						
AIR TEMPERATURE (DEG C):	34.5						
REMARKS:	STEEP SPOIL BANKS.						
<b>July</b>							
	12...	1013	.00	1880	7.5	29.5	7.9
	12...	1014	2.00	1890	7.5	29.5	7.7
	12...	1015	4.00	1890	7.6	29.0	7.8
	12...	1016	6.00	1890	7.6	29.0	7.6
	12...	1017	8.00	1910	7.4	29.0	7.2
	12...	1018	10.0	1930	7.3	28.5	7.1
	12...	1019	12.0	1950	7.2	28.0	6.5
	12...	1020	14.0	2030	6.9	25.0	2.4
	12...	1021	16.0	2180	6.7	22.0	1.8
	12...	1022	18.0	2560	6.6	18.0	2.9
	12...	1023	20.0	2650	6.5	16.5	3.3
	12...	1024	22.0	2680	6.5	15.5	3.8
	12...	1025	24.0	2770	6.5	14.5	3.0
	12...	1026	25.0	2820	6.5	14.0	1.2

## LAKE NO. 66 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380104089193401						
LAKE LAT-LONG:	380024 0891943						
LAKE NAME:	UNNAMED LAKE NO. 7 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	23.5			Sam-	Spe-		
MAXIMUM DEPTH (FEET):	19.0			pling	cific	pH	Oxygen,
MAXIMUM WIDTH (MILES):	0.07	Date	Time	depth	con-	(stand-	dis-
MAXIMUM LENGTH (MILES):	1.21			(feet)	duct-	ard	solved
TRANSPARENCY (SECCHI DISC) (FEET):	8.2				ance	units)	(mg/L)
COLOR:	BROWN TO DARK GREEN						
VEGETATION:	WOODS, GRASSES						
AIR TEMPERATURE (DEG C):	33.5						
REMARKS:	SOME SCUM ON POND.						
<b>July</b>							
	12...	1550	.00	1650	7.7	31.5	8.3
	12...	1551	2.00	1670	7.7	30.0	7.9
	12...	1552	4.00	1670	7.7	29.5	7.7
	12...	1553	6.00	1680	7.6	29.5	7.6
	12...	1554	8.00	1840	7.2	28.5	7.1
	12...	1555	10.0	2420	6.6	25.5	7.8
	12...	1556	12.0	2730	6.4	20.5	11.7
	12...	1557	14.0	2920	6.3	17.0	--
	12...	1558	16.0	3150	--	15.5	--
	12...	1559	18.0	3260	--	14.5	--

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

LAKE NO. 67 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:	380111089255001								WATER-QUALITY DATA	
LAKE LAT-LONG:	380057 0892602									
LAKE NAME:	BOULDER LAKE NEAR PINCKNEYVILLE, IL								Oxida-	tion
LAKE SIZE (ACRES):	47.3	Time	Sam-	Spe-	reduc-				Oxygen,	
MAXIMUM DEPTH (FEET):	49.0	Date	pling depth (feet)	specific conductance ( $\mu\text{S}/\text{cm}$ )	pH (stand ard units)	(stand ard potenti al mv)	Temper ature (deg C)	dis solved (mg/L)	dis solved (mg/L)	
MAXIMUM WIDTH (MILES):	0.14	June								
MAXIMUM LENGTH (MILES):	1.07	21...	1203 .00	1010	8.1	222	27.5	8.1		
		21...	1204 3.30	1010	8.0	219	27.0	8.0		
TRANSPARENCY (SECCHI DISC) (FEET):	13.4	21...	1205 6.60	1020	7.8	222	26.5	7.8		
		21...	1206 9.80	1110	7.8	221	23.0	10.1		
		21...	1207 13.1	1090	8.0	217	18.5	9.9		
COLOR:	DARK GREEN	21...	1208 16.4	1080	8.2	211	14.5	9.9		
		21...	1209 19.7	1100	8.3	210	12.0	9.9		
AIR TEMPERATURE (DEG C):	32.0	21...	1210 23.0	1110	8.4	208	11.0	10.1		
		21...	1211 26.2	1120	7.9	214	9.5	5.6		
REMARKS: VERY IRREGULAR SHORELINE, SEVERAL ISLANDS AND VERY UNEVEN BOTTOM.		21...	1212 29.5	1160	7.8	-171	8.5	3.8		
MUCH VEGETATION IN WATER.		21...	1213 32.8	1270	7.6	-196	8.0	3.9		
		21...	1214 36.1	2410	7.2	-219	8.5	3.7		
		21...	1215 39.4	2920	7.2	-272	9.0	3.7		
		21...	1216 42.6	3020	7.2	-288	9.5	3.8		
		21...	1217 45.9	3060	7.2	-292	9.5	3.9		

LAKE NO. 68 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:	380112089234901								WATER-QUALITY DATA	
LAKE LAT-LONG:	380047 0892335									
LAKE NAME:	UNNAMED LAKE NO. 12 NEAR PINCKNEYVILLE, IL								Spe-	ci
LAKE SIZE (ACRES):	25.1	Time	Sam-	Spe-	pH				Oxygen,	
MAXIMUM DEPTH (FEET):	44.0	Date	pling depth (feet)	specific conductance ( $\mu\text{S}/\text{cm}$ )	(stand ard units)	Temper ature (deg C)			dis solved (mg/L)	
MAXIMUM WIDTH (MILES):	0.06	June								
MAXIMUM LENGTH (MILES):	1.12	24...	0908 .00	1930	7.3	28.5	9.4			
		24...	0909 2.00	1930	7.6	28.0	9.4			
TRANSPARENCY (SECCHI DISC) (FEET):	25.9	24...	0910 4.00	1990	7.6	28.0	9.0			
		24...	0911 6.00	2000	7.6	28.0	8.7			
		24...	0912 8.00	2040	7.5	28.0	7.8			
COLOR:	DARK GREEN	24...	0913 10.0	2040	7.3	27.5	5.4			
		24...	0914 12.0	2020	7.3	23.5	10.0			
VEGETATION:	WOODS	24...	0915 14.0	2040	7.5	20.5	13.2			
		24...	0916 16.0	2050	7.7	17.5	11.5			
AIR TEMPERATURE (DEG C):	30.0	24...	0917 18.0	2060	7.7	15.5	11.4			
		24...	0918 20.0	2070	7.7	14.0	11.0			
		24...	0919 22.0	2080	7.6	12.5	10.5			
		24...	0920 24.0	2080	7.6	11.5	10.2			
		24...	0921 26.0	2090	7.5	11.0	9.9			
		24...	0922 28.0	2090	7.5	10.0	8.3			
		24...	0923 30.0	2100	7.4	9.5	7.3			
		24...	0924 32.0	2100	7.3	9.5	6.6			
		24...	0925 34.0	2110	7.2	9.0	4.7			
		24...	0926 36.0	2120	7.1	8.5	3.1			
		24...	0927 38.0	2120	7.1	8.5	2.1			
		24...	0928 40.0	2130	7.0	8.0	.8			
		24...	0929 42.0	2190	7.0	8.0	.0			

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 69 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:							
LAKE NAME: UNNAMED LAKE NO. 11 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	27.8	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	32.0						
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	1.44						
TRANSPARENCY (SECCHI DISC) (FEET):	9.5						
COLOR:	DARK GREEN						
VEGETATION:	GRASSES, WOODS						
AIR TEMPERATURE (DEG C):	31.5						
REMARKS:	IRREGULAR SHORELINE.						
July							
13...	0920	.00	2630	7.8	30.0	7.7	
13...	0921	2.00	2640	7.8	30.0	7.9	
13...	0922	4.00	2640	7.7	30.0	7.9	
13...	0923	6.00	2640	7.7	29.5	8.5	
13...	0924	8.00	2660	7.5	28.0	9.6	
13...	0925	10.0	2840	6.8	24.5	8.3	
13...	0926	12.0	2900	6.8	21.5	5.7	
13...	0927	14.0	2890	6.8	18.5	3.7	
13...	0928	16.0	2890	6.8	17.5	3.2	
13...	0929	18.0	2940	6.8	17.0	3.4	
13...	0930	20.0	3050	6.9	16.0	4.0	
13...	0931	22.0	3260	6.9	15.5	3.6	
13...	0932	24.0	3460	6.8	15.0	3.6	
13...	0933	26.0	3610	6.8	14.5	2.4	
13...	0934	28.0	3680	6.7	14.0	1.3	
13...	0935	30.0	3700	6.7	14.0	1.1	
13...	0936	31.0	3720	6.7	13.5	1.0	

## LAKE NO. 70 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:							
LAKE NAME: UNNAMED LAKE NO. 11 NEAR PINCKNEYVILLE, IL							
LAKE SIZE (ACRES):	15.3	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	35.0						
MAXIMUM WIDTH (MILES):	0.14						
MAXIMUM LENGTH (MILES):	0.31						
TRANSPARENCY (SECCHI DISC) (FEET):	16.1						
COLOR:	DARK GREEN						
VEGETATION:	BRUSH, WOODS						
AIR TEMPERATURE (DEG C):	31.0						
REMARKS: VERY IRREGULAR SHORELINE, AND BOTTOM.							
June							
24...	1012	.00	743	7.8	29.0	9.3	
24...	1013	2.00	750	8.3	29.0	9.0	
24...	1014	4.00	751	8.3	29.0	8.6	
24...	1015	6.00	751	8.3	28.5	8.7	
24...	1016	8.00	758	8.2	27.0	8.9	
24...	1017	10.0	779	8.3	25.0	11.3	
24...	1018	12.0	803	8.3	21.0	11.4	
24...	1019	14.0	803	8.3	18.0	11.2	
24...	1020	16.0	802	8.2	15.5	10.3	
24...	1021	18.0	810	8.0	14.0	9.6	
24...	1022	20.0	813	7.8	12.0	7.6	
24...	1023	22.0	820	7.6	11.0	4.4	
24...	1024	24.0	830	7.4	10.0	1.4	
24...	1025	26.0	840	7.2	9.5	.4	
24...	1026	28.0	852	7.2	8.5	.0	
24...	1027	30.0	860	7.2	S.0	.0	
24...	1028	32.0	874	7.1	7.5	.0	
24...	1029	34.0	899	7.0	7.5	.0	

Table 2--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 71 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:		380121089215301					
LAKE LAT-LONG:		380126 0892127					
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 8 NEAR PINCKNEYVILLE, IL	Specific	con-	pH	(stand-	Temper-	Oxygen,
LAKE SIZE (ACRES):	60.8	Sam-	duct-	ard	ard	atura	dis-
MAXIMUM DEPTH (FEET):	41.0	pling	ance	units)	(deg C)	(deg C)	solved
MAXIMUM WIDTH (MILES):	0.09	Time	(feet)	( $\mu\text{s}/\text{cm}$ )			(mg/L)
July							
MAXIMUM LENGTH (MILES):	0.71	21...	1145	.00	1460	7.5	32.5
		21...	1146	3.30	1470	7.9	32.0
TRANSPARENCY (SECCHI DISC)		21...	1147	6.60	1470	7.9	31.0
(FEET):	6.6	21...	1148	9.80	1470	7.7	27.5
COLOR:	AQUA TO DARK GREEN	21...	1149	13.1	1480	7.6	23.5
		21...	1150	16.4	1500	7.5	18.0
VEGETATION:	WOODS, GRASSES	21...	1151	19.7	1530	7.6	13.0
		21...	1152	23.0	1540	7.6	11.0
AIR TEMPERATURE (DEG C):	36.5	21...	1153	26.2	1560	7.5	10.5
		21...	1154	29.5	1620	7.5	9.5
REMARKS:	VERY IRREGULAR SHORELINE, AND UNEVEN BOTTOM. OUTLET PRESENT.	21...	1155	32.8	1760	7.4	9.0
		21...	1156	36.1	2080	7.1	9.0
		21...	1157	39.4	2270	7.1	8.5

## LAKE NO. 72 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:		380125089234101					
LAKE LAT-LONG:		380120 0892340					
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 10 NEAR PINCKNEYVILLE, IL	Specific	con-	pH	(stand-	Oxida-	
LAKE SIZE (ACRES):	42.7	Sam-	duct-	ard	ard	tion	
MAXIMUM DEPTH (FEET):	26.0	pling	ance	units)	( $\mu\text{s}/\text{cm}$ )	reduc-	
MAXIMUM WIDTH (MILES):	0.12	Time	(feet)			poten-	Temper-
	Date					tial	ature
June							
MAXIMUM LENGTH (MILES):	0.62	23...	1540	.00	2220	8.1	201
		23...	1541	3.30	2250	7.9	190
TRANSPARENCY (SECCHI DISC)		23...	1542	6.60	2280	7.2	197
(FEET):	15.1	23...	1543	9.80	2420	7.0	200
		23...	1544	13.1	2440	--	202
REMARKS:	MUCH ALGAE AND AQUATIC VEGETATION.	23...	1545	16.4	2440	--	202
	SOME AREAS BUBBLE.	23...	1546	19.7	2430	--	196
		23...	1547	23.0	2420	--	191

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 73 - DU QUOIN QUADRANGLE (FIG. 7)

STATION ID:	380132089131801						
LAKE LAT-LONG:	380119 0891327						
LAKE NAME:	UNNAMED LAKE NO. 1 AT DU QUOIN, IL						
LAKE SIZE (ACRES):	28.3	Date	Time	Sam- pling depth (feet)	Spe- cific conduct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	35.0						
MAXIMUM WIDTH (MILES):	0.08						
MAXIMUM LENGTH (MILES):	0.69						
TRANSPARENCY (SECCHI DISC) (FEET):	2.3						
COLOR:	PEA GREEN						
VEGETATION:	WOODS, GRASSES						
AIR TEMPERATURE (DEG C):	32.5						
REMARKS: VERY IRREGULAR SHORELINE, AND UNEVEN BOTTOM. OUTLET PRESENT.							
Aug.							
	01...	1527	.00	979	8.7	34.5	12.3
	01...	1528	2.00	987	8.9	32.0	14.9
	01...	1529	4.00	996	8.7	31.5	12.6
	01...	1530	6.00	1020	7.7	29.5	7.5
	01...	1531	8.00	1030	7.4	29.0	1.3
	01...	1532	10.0	1040	7.1	27.0	.2
	01...	1533	12.0	1080	7.1	23.5	.1
	01...	1534	14.0	1160	7.4	18.5	.0
	01...	1535	16.0	1180	7.3	14.5	.0
	01...	1536	18.0	1190	7.1	12.0	.0
	01...	1537	20.0	1190	7.0	10.5	.0
	01...	1538	22.0	1220	6.9	9.5	.0
	01...	1539	24.0	1280	6.8	9.0	.0
	01...	1540	26.0	1410	6.7	8.5	.0
	01...	1541	28.0	1730	6.6	8.5	.0
	01...	1542	30.0	2120	6.5	8.5	.0
	01...	1543	32.0	2270	6.4	8.5	.0
	01...	1544	34.0	2330	6.5	8.5	.0

## LAKE NO. 74 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380133089162701						
LAKE LAT-LONG:	380108 0891726						
LAKE NAME:	UNNAMED LAKE NO. 12 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	22.8	Date	Time	Sam- pling depth (feet)	Spe- cific conduct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	37.0						
MAXIMUM WIDTH (MILES):	0.03						
MAXIMUM LENGTH (MILES):	1.15						
TRANSPARENCY (SECCHI DISC) (FEET):	8.2						
COLOR:	DARK GREEN						
VEGETATION:	GRASSES, WOODS						
AIR TEMPERATURE (DEG C):	34.0						
REMARKS: HIGH WATER LEVELS HAVE CURRENTLY ATTACHED THIS LAKE TO LAKE NO. 75.							
July							
	14...	1130	.00	3590	7.3	30.0	11.0
	14...	1131	2.00	3590	7.3	29.5	9.6
	14...	1132	4.00	3610	6.8	29.0	13.7
	14...	1133	6.00	3760	6.3	26.5	17.2
	14...	1134	8.00	3820	6.2	23.0	15.2
	14...	1135	10.0	3890	6.1	18.0	7.2
	14...	1136	12.0	3970	6.2	15.5	.0
	14...	1137	14.0	4030	6.3	14.5	.0
	14...	1138	16.0	4090	6.4	14.0	.0
	14...	1139	18.0	4130	6.4	13.5	.0
	14...	1140	20.0	4170	6.5	13.0	.0
	14...	1141	22.0	4210	6.5	13.0	.0
	14...	1142	24.0	4230	6.5	13.0	.0
	14...	1143	26.0	4260	6.5	12.5	.0
	14...	1144	28.0	4290	6.5	12.5	.0
	14...	1145	30.0	4350	6.5	12.5	.0
	14...	1146	32.0	4440	6.5	12.5	.0
	14...	1147	34.0	4560	6.4	12.5	.0
	14...	1148	36.0	4630	6.5	12.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

LAKE NO. 75 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380135089172701						
LAKE LAT-LONG:	380122 0891711						
LAKE NAME:	UNNAMED LAKE NO. 13 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	12.1	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Temper- ature (deg C)
MAXIMUM DEPTH (FEET):	41.0						
MAXIMUM WIDTH (MILES):	0.09						
MAXIMUM LENGTH (MILES):	0.42						
TRANSPARENCY (SECCHI DISC) (FEET):	7.5						
VEGETATION:	WOODS, GRASSES						
AIR TEMPERATURE (DEG C):	34.0						
REMARKS:	IRREGULAR SHORELINE. HIGH WATER LEVELS HAVE CURRENTLY ATTACHED THIS LAKE WITH LAKE NO. 74.						
<b>WATER-QUALITY DATA</b>							
<b>July</b>							
14...	1157	.00	3400	7.6	31.0	8.8	
14...	1158	2.00	3400	7.7	30.5	8.0	
14...	1159	4.00	3410	7.6	30.5	7.8	
14...	1200	6.00	3400	7.5	30.0	7.0	
14...	1201	7.00	3400	7.5	28.5	7.0	
14...	1202	8.00	3420	7.3	26.5	6.5	
14...	1203	9.00	3470	7.5	21.0	11.4	
14...	1204	10.0	3500	7.7	17.0	11.1	
14...	1205	11.0	3500	7.7	14.5	10.7	
14...	1206	12.0	3500	7.8	13.0	10.3	
14...	1207	14.0	3520	7.8	12.0	9.5	
14...	1208	16.0	3530	7.7	11.0	8.3	
14...	1209	18.0	3530	7.7	10.0	6.6	
14...	1210	20.0	3550	7.6	9.5	5.1	
14...	1211	22.0	3550	7.6	9.0	3.6	
14...	1212	24.0	3560	7.5	8.5	1.7	
14...	1213	26.0	3570	7.5	8.0	.2	
14...	1214	28.0	3570	7.4	8.0	.0	
14...	1215	30.0	3580	7.4	8.0	.0	
14...	1216	32.0	3580	7.4	8.0	.0	
14...	1217	34.0	3580	7.4	8.0	.0	

LAKE NO. 76 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380146089211601						
LAKE LAT-LONG:	380141 0892120						
LAKE NAME:	UNNAMED LAKE NO. 7 NEAR PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	29.0	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Temper- ature (deg C)
MAXIMUM DEPTH (FEET):	58.0						
MAXIMUM WIDTH (MILES):	0.24						
MAXIMUM LENGTH (MILES):	0.42						
TRANSPARENCY (SECCHI DISC) (FEET):	15.7						
COLOR:	DARK GREEN						
VEGETATION:	GRASSES						
AIR TEMPERATURE (DEG C):	39.0						
REMARKS:	IRREGULAR SHORELINE.						
<b>WATER-QUALITY DATA</b>							
<b>July</b>							
21...	1315	.00	2320	7.6	33.5	7.2	
21...	1316	3.30	2330	7.8	33.0	7.1	
21...	1317	6.60	2330	7.7	32.0	6.4	
21...	1318	9.80	2420	7.3	28.5	4.2	
21...	1319	13.1	2440	7.6	21.5	8.9	
21...	1320	16.4	2460	7.9	16.0	10.2	
21...	1321	19.7	2480	8.0	13.0	12.4	
21...	1322	23.0	2470	8.1	11.5	14.0	
21...	1323	26.2	2500	8.0	10.5	13.9	
21...	1324	29.5	2550	7.8	9.5	15.0	
21...	1325	32.8	2610	7.7	9.0	12.6	
21...	1326	36.1	2690	7.5	9.0	12.1	
21...	1327	39.4	2860	7.3	9.0	10.3	
21...	1328	42.6	2180	7.2	9.0	13.1	
21...	1329	45.9	3240	7.1	8.5	15.3	
21...	1330	49.2	3360	7.1	8.0	14.4	
21...	1331	52.5	3430	7.3	8.0	9.3	
21...	1332	55.8	3490	7.3	8.0	4.6	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 77 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:	380147089252701						
LAKE LAT-LONG:	380139 0892534						
LAKE NAME:	WESSELM CUT NEAR PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	30.6						
MAXIMUM DEPTH (FEET):	48.0						
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	0.14						
TRANSPARENCY (SECCHI DISC) (FEET):	3.9						
VEGETATION:	WOODS						
Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
<b>June</b>							
22...	0957	.00	492	8.5	27.5	9.0	
22...	0958	3.30	506	8.2	27.0	7.5	
22...	0959	6.60	625	7.6	21.0	1.3	
22...	1000	9.80	716	7.4	15.0	1.3	
22...	1001	13.1	728	7.5	12.0	1.5	
22...	1002	16.4	795	7.4	10.5	1.5	
22...	1003	19.7	1300	7.2	10.0	1.5	
22...	1004	23.0	1950	7.0	9.5	1.4	
22...	1005	26.2	2140	6.9	9.5	1.4	
22...	1006	29.5	2290	6.8	9.5	1.4	
22...	1007	32.8	2360	6.8	9.5	1.4	
22...	1008	36.1	2430	6.8	10.0	1.4	
22...	1009	39.4	2500	6.8	10.0	1.4	
22...	1010	42.6	2570	6.7	10.0	1.3	
22...	1011	45.9	2610	6.7	10.0	1.3	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 78 - DU QUOIN AND PYATTS QUADRANGLES (FIGS. 7, 16)

STATION ID:		380153089154601					
LAKE LAT-LONG:		380144 0891545					
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 24 NEAR DU QUOIN, IL			Spe- ci-fic con- duct- ance ( $\mu$ s/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
LAKE SIZE (ACRES):	106.		Sam- pling depth (feet)				
MAXIMUM DEPTH (FEET):	72.0	Date	Time				
MAXIMUM WIDTH (MILES):	0.12						
MAXIMUM LENGTH (MILES):	2.02	July					
	05...	1515	.00	2780	7.7	27.5	7.1
	05...	1516	2.00	2770	7.7	27.5	6.8
TRANSPARENCY (SECCHI DISC) (FEET):	11.2	05...	1517	4.00	2780	7.7	27.5
	05...	1518	6.00	2780	7.7	27.5	6.7
	05...	1519	8.00	2780	7.7	27.5	6.7
COLOR:	DARK GREEN	05...	1520	10.0	2800	7.6	27.0
	05...	1521	12.0	2840	7.3	25.0	5.6
VEGETATION:	GRASSES	05...	1522	14.0	2830	7.4	21.5
	05...	1523	16.0	2890	7.4	20.0	6.0
AIR TEMPERATURE (DEG C):	29.5	05...	1524	18.0	3020	7.5	17.0
	05...	1525	20.0	3090	7.5	15.0	6.5
REMARKS: VERY GENTLY SLOPING SPOIL, WITH SOME HIGHWALL AREAS.		05...	1526	22.0	3140	7.5	13.5
	05...	1527	24.0	3160	7.6	12.5	7.4
	05...	1528	26.0	3170	7.6	11.5	7.4
	05...	1529	28.0	3170	7.5	11.0	6.2
	05...	1530	30.0	3180	7.4	10.0	4.3
	05...	1531	32.0	3180	7.2	10.0	3.0
	05...	1532	34.0	3190	7.2	9.5	2.4
	05...	1533	36.0	3200	7.1	9.0	1.5
	05...	1534	38.0	3210	7.1	9.0	1.1
	05...	1535	40.0	3220	7.1	8.5	.9
	05...	1536	42.0	3230	7.0	8.5	.8
	05...	1537	44.0	3230	7.0	8.5	.6
	05...	1538	46.0	3240	7.0	8.5	.3
	05...	1539	48.0	3240	7.0	8.5	.0
	05...	1540	50.0	3260	6.9	8.0	.0
	05...	1541	52.0	3280	6.9	8.0	.0
	05...	1542	54.0	3300	6.9	8.0	.0
	05...	1543	56.0	3300	6.9	8.0	.0
	05...	1544	58.0	3310	6.9	8.0	.0
	05...	1545	60.0	3310	6.9	8.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 79 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:		380153089160401											
LAKE LAT-LONG:		380152 0891610											
WATER-QUALITY DATA													
LAKE NAME: UNNAMED LAKE NO. 25 NEAR DU QUOIN, IL													
LAKE SIZE (ACRES):	13.3	Sampling Date	Time	Specific conductance ( $\mu\text{S}/\text{cm}$ )	pH (standard units)	Temperature (deg C)	Oxygen, dissolved (mg/L)						
MAXIMUM DEPTH (FEET):	56.0												
MAXIMUM WIDTH (MILES):	0.05												
MAXIMUM LENGTH (MILES):	0.53												
TRANSPARENCY (SECCHI DISC) (FEET):	11.8												
COLOR:	DARK GREEN												
VEGETATION:	WOODS												
AIR TEMPERATURE (DEG C):	30.0												
REMARKS:	IRREGULAR SHORELINE.												
July													
05...	1338	.00	2720	7.8	29.5	6.7							
05...	1339	2.00	2730	7.9	29.5	6.6							
05...	1340	4.00	2720	7.9	29.0	6.6							
05...	1341	6.00	2730	7.9	29.0	6.6							
05...	1342	8.00	2730	7.9	29.0	6.6							
05...	1343	10.0	2730	7.8	28.5	6.6							
05...	1344	12.0	2730	7.8	28.5	6.5							
05...	1345	14.0	2730	7.6	28.0	5.5							
05...	1346	16.0	2740	7.5	27.0	3.5							
05...	1347	18.0	2750	7.3	25.0	2.9							
05...	1348	20.0	2770	7.2	22.5	2.1							
05...	1349	22.0	2920	7.2	20.5	2.4							
05...	1350	24.0	3090	7.3	18.0	4.5							
05...	1351	26.0	3140	7.5	15.5	6.6							
05...	1352	28.0	3150	7.6	14.0	6.9							
05...	1353	30.0	3160	7.6	12.5	7.8							
05...	1354	32.0	3160	7.6	11.5	7.9							
05...	1355	34.0	3200	7.4	10.5	6.2							
05...	1356	36.0	3230	7.2	9.0	5.6							
05...	1357	38.0	3290	7.0	8.5	4.2							
05...	1358	40.0	3310	6.9	8.0	3.5							
05...	1359	42.0	3350	6.9	8.0	2.9							
05...	1400	44.0	3380	6.8	8.0	1.7							
05...	1401	46.0	3410	6.8	7.5	.3							
05...	1402	48.0	3470	6.8	7.5	.0							
05...	1403	50.0	3530	6.7	8.0	.0							
05...	1404	52.0	3770	6.6	8.0	.0							
05...	1405	54.0	4030	6.6	8.0	.0							

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 80 - PERCY AND PINCKNEYVILLE QUADRANGLES (FIGS. 14, 15)

STATION ID:	380153089302201						
LAKE LAT-LONG:	380200 0892926						
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR JAMESTOWN, IL						
LAKE SIZE (ACRES):	108.	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	62.0						
MAXIMUM WIDTH (MILES):	0.16						
MAXIMUM LENGTH (MILES):	1.98	June					
	29...	1057	.00	2420	7.5	28.0	8.2
	29...	1058	2.00	2420	8.0	28.0	7.9
TRANSPARENCY (SECCHI DISC) (FEET):	4.9	29...	1059	4.00	2430	8.1	28.0
	29...	1100	6.00	2430	8.1	28.0	7.9
	29...	1101	8.00	2440	8.1	27.5	7.7
COLOR:	GREEN-BROWN	29...	1102	10.0	2580	7.6	26.0
	29...	1103	12.0	2700	7.3	22.5	3.1
VEGETATION:	GRASSES	29...	1104	14.0	2790	7.3	21.0
	29...	1105	16.0	2940	7.2	19.0	.6
AIR TEMPERATURE (DEG C):	28.5	29...	1106	18.0	3230	7.0	16.5
	29...	1107	20.0	3330	7.1	15.5	.3
REMARKS: VERY GENTLY SLOPING SHORE- LINE WITH SOME ROCK OUTCROPS ALONG THE HIGHWALL. OUTLET PRESENT.		29...	1108	22.0	3580	7.0	14.0
	29...	1109	24.0	3790	7.0	13.0	.1
	29...	1110	26.0	3960	6.9	13.0	.1
	29...	1111	28.0	4160	6.9	12.5	.1
	29...	1112	30.0	4350	6.9	12.0	.0
	29...	1113	32.0	4630	6.8	12.0	.0
	29...	1114	34.0	4820	6.8	12.0	.0
	29...	1115	36.0	5140	6.8	13.0	.0
	29...	1116	38.0	5220	6.7	13.0	.0
	29...	1117	40.0	5230	6.7	12.5	.0
	29...	1118	42.0	5310	6.7	12.0	.0
	29...	1119	44.0	5670	6.7	12.0	.0
	29...	1120	46.0	6250	6.6	12.5	.0
	29...	1121	48.0	6490	6.6	12.0	.0
	29...	1122	50.0	6770	6.6	12.0	.0
	29...	1123	52.0	6980	6.6	12.0	.0
	29...	1124	54.0	7120	6.6	12.0	.0
	29...	1125	56.0	7250	6.6	12.0	.0
	29...	1126	58.0	7350	6.6	12.0	.0
	29...	1127	60.0	7590	6.6	12.0	.0
	29...	1128	61.0	7800	6.6	11.5	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 81 - PYATT'S QUADRANGLE (FIG. 16)

STATION ID:	380158089194901							
LAKE LAT-LONG:	380139 0891942							
LAKE NAME:	UNNAMED LAKE NO. 15 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	40.8							
MAXIMUM DEPTH (FEET):	37.0							
MAXIMUM WIDTH (MILES):	0.08							
MAXIMUM LENGTH (MILES):	1.20							
TRANSPARENCY (SECCHI DISC) (FEET):	8.2							
COLOR:	AQUA TO DARK GREEN							
VEGETATION:	GRASSES							
AIR TEMPERATURE (DEG C):	38.0							
REMARKS:	FAIRLY STEEP SPOIL BANKS, AND EXPOSED ROCK HIGHWALL.							
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		Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
July								
		13...	1325	.00	1780	7.8	30.5	7.4
		13...	1326	2.00	1780	7.8	30.0	7.0
		13...	1327	4.00	1790	7.8	29.5	7.0
		13...	1328	6.00	1820	7.7	29.0	7.4
		13...	1329	8.00	1940	7.4	28.0	6.9
		13...	1330	10.0	2130	7.1	27.0	6.8
		13...	1331	12.0	2710	6.8	25.0	6.7
		13...	1332	14.0	4000	6.6	20.0	6.4
		13...	1333	16.0	4170	6.6	16.5	4.9
		13...	1334	18.0	4290	6.6	15.0	4.9
		13...	1335	20.0	4360	6.7	14.5	5.0
		13...	1336	22.0	4480	6.7	14.0	5.1
		13...	1337	24.0	4520	6.7	14.0	5.1
		13...	1338	26.0	4550	6.7	13.5	5.1
		13...	1339	28.0	4570	6.7	13.5	5.2
		13...	1340	30.0	4620	6.7	13.0	5.3
		13...	1341	32.0	4630	6.7	13.0	5.3
		13...	1342	34.0	4640	6.7	13.0	1.7
		13...	1343	36.0	4650	6.7	13.0	1.3

## LAKE NO. 82 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:	380205089240501							
LAKE LAT-LONG:	380157 0892355							
LAKE NAME:	CLEAR LAKE NEAR PINCKNEYVILLE, IL							
LAKE SIZE (ACRES):	11.8							
MAXIMUM DEPTH (FEET):	44.0							
MAXIMUM WIDTH (MILES):	0.05							
MAXIMUM LENGTH (MILES):	0.59							
TRANSPARENCY (SECCHI DISC) (FEET):	13.8							
VEGETATION:	WOODS							
AIR TEMPERATURE (DEG C):	29.0							
REMARKS:	IRREGULAR SHORELINE.							
<hr/>								
		Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
June								
		22...	1100	.00	758	8.1	27.5	8.6
		22...	1101	3.30	758	8.1	26.5	8.8
		22...	1102	6.60	788	7.8	25.0	10.3
		22...	1103	9.80	865	8.1	19.5	12.2
		22...	1104	13.1	876	7.9	16.5	10.6
		22...	1105	16.4	886	7.8	13.5	8.4
		22...	1106	19.7	930	7.7	11.5	6.5
		22...	1107	23.0	1020	7.5	10.5	5.4
		22...	1108	26.2	1180	7.3	10.0	2.2
		22...	1109	29.5	1480	7.0	10.0	1.3
		22...	1110	32.8	1920	6.9	10.5	1.1
		22...	1111	36.1	2180	6.8	11.0	1.0
		22...	1112	39.4	2410	6.8	11.5	1.0
		22...	1113	41.0	2450	6.7	11.5	1.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 83 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:		380208089155801					
LAKE LAT-LONG:		380201 0891636					
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 23 NEAR DU QUOIN, IL	LAKE SIZE (ACRES):	103.	Sampling Date	Time	Specific conductance ( $\mu\text{S}/\text{cm}$ )	pH (standard units)
MAXIMUM DEPTH (FEET):	84.0	MAXIMUM WIDTH (MILES):	0.30	Max depth (feet)			Temperature (deg C)
MAXIMUM LENGTH (MILES):	1.19	REMARKS: VERY IRREGULAR TO UNIFORM SHORELINE. SEVERAL SHALLOW AREAS.	July				Oxygen, dissolved (mg/L)
TRANSPARENCY (SECCHI DISC) (FEET):	12.1	06... 1315	.00	2940	7.8	27.5	7.2
COLOR:	DARK GREEN	06... 1316	2.00	2950	7.9	27.5	6.9
VEGETATION:	GRASSES, WOODS	06... 1317	4.00	2950	7.9	27.5	6.8
AIR TEMPERATURE (DEG C):	26.0	06... 1318	6.00	2950	7.9	27.5	6.8
		06... 1319	8.00	2950	7.9	27.5	6.8
		06... 1320	10.0	2960	7.9	27.0	6.6
		06... 1321	12.0	2960	7.9	27.0	6.5
		06... 1322	14.0	2950	7.8	26.5	5.8
		06... 1323	16.0	2940	7.8	23.0	7.5
		06... 1324	18.0	3070	7.8	19.5	7.7
		06... 1325	20.0	3180	7.8	17.0	8.5
		06... 1326	22.0	3190	7.8	15.0	8.7
		06... 1327	24.0	3190	7.8	13.5	8.8
		06... 1328	26.0	3190	7.8	12.5	8.6
		06... 1329	28.0	3200	7.8	11.5	8.6
		06... 1330	30.0	3200	7.7	10.5	8.1
		06... 1331	32.0	3190	7.7	10.0	7.8
		06... 1332	34.0	3200	7.6	10.0	7.3
		06... 1333	36.0	3210	7.6	9.5	7.1
		06... 1334	38.0	3210	7.5	9.0	6.8
		06... 1335	40.0	3210	7.5	9.0	6.4
		06... 1336	42.0	3230	7.4	8.5	6.1
		06... 1337	44.0	3230	7.4	8.0	5.7
		06... 1338	46.0	3240	7.3	8.0	5.1
		06... 1339	48.0	3260	7.3	8.0	4.6
		06... 1340	50.0	3290	7.2	7.5	3.7
		06... 1341	52.0	3350	7.1	7.5	2.1
		06... 1342	54.0	3520	7.0	7.5	.7
		06... 1343	56.0	4010	6.8	7.5	.0
		06... 1344	58.0	4120	6.7	7.5	.0
		06... 1345	60.0	4200	6.6	7.0	.0
		06... 1346	62.0	4240	6.6	7.0	.0
		06... 1347	64.0	4260	6.6	7.5	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 84 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380218089182201						
LAKE LAT-LONG:	380218 0891837						
LAKE NAME: UNNAMED LAKE NO. 14 NEAR DU QUOIN, IL	WATER-QUALITY DATA						
LAKE SIZE (ACRES):	79.0	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	50.0						
MAXIMUM WIDTH (MILES):	0.09						
MAXIMUM LENGTH (MILES):	2.25						
TRANSPARENCY (SECCHI DISC) (FEET):	3.9						
COLOR:	DARK GREEN TO BROWN						
VEGETATION:	GRASSES, WOODS						
AIR TEMPERATURE (DEG C):	36.5						
REMARKS: STEEP TO GENTLE SPOIL. TWO OUTLETS PRESENT.							
		July					
		13...	1112	.00	1310	8.9	30.5
		13...	1113	2.00	1310	8.8	30.0
		13...	1114	4.00	1310	8.8	29.5
		13...	1115	6.00	1310	8.7	28.5
		13...	1116	8.00	1320	8.4	27.0
		13...	1117	10.0	1340	8.1	26.0
		13...	1118	12.0	1370	7.9	25.5
		13...	1119	14.0	1390	7.8	24.5
		13...	1120	16.0	1450	7.6	22.5
		13...	1121	18.0	1460	7.6	21.0
		13...	1122	20.0	1520	7.3	19.0
		13...	1123	22.0	1680	7.2	18.0
		13...	1124	24.0	2130	7.1	16.5
		13...	1125	26.0	2590	7.0	15.5
		13...	1126	28.0	3030	6.9	15.0
		13...	1127	30.0	3230	6.9	14.5
		13...	1128	32.0	3510	6.9	14.0
		13...	1129	34.0	3670	6.8	14.0
		13...	1130	36.0	3830	6.8	14.0
		13...	1131	38.0	4100	6.8	13.5
		13...	1132	40.0	5020	6.8	13.5
		13...	1133	42.0	5250	6.9	13.0
		13...	1134	44.0	5320	6.9	13.0
		13...	1135	46.0	5340	6.9	13.0
		13...	1136	48.0	5340	6.9	13.0
		13...	1137	49.0	5340	7.0	12.5

## LAKE NO. 85 - PINCKNEYVILLE QUADRANGLE (FIG. 15)

STATION ID:	380218089225001						
LAKE LAT-LONG:	380214 0892248						
LAKE NAME: UNNAMED LAKE NO. 9 NEAR PINCKNEYVILLE, IL	WATER-QUALITY DATA						
LAKE SIZE (ACRES):	17.1	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	11.0						
MAXIMUM WIDTH (MILES):	0.15						
MAXIMUM LENGTH (MILES):	0.43						
TRANSPARENCY (SECCHI DISC) (FEET):	4.6						
COLOR:	RED						
VEGETATION:	NONE TO WOODS						
AIR TEMPERATURE (DEG C):	30.0						
REMARKS: MANY EXPOSED GOB PILES.							
		July					
		08...	1220	.00	4100	1.8	29.0
		08...	1221	1.00	4130	1.8	27.5
		08...	1222	2.00	4160	1.8	26.0
		08...	1223	3.00	4170	1.8	25.5
		08...	1224	4.00	4170	1.8	25.5
		08...	1225	5.00	4370	1.8	25.0
		08...	1226	6.00	5060	1.8	23.5
		08...	1227	7.00	5310	1.8	20.0
		08...	1228	8.00	5570	1.8	18.5
		08...	1229	9.00	6010	1.9	17.0
		08...	1230	10.0	6710	2.0	16.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 86 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380220089155301					
LAKE LAT-LONG:	380216 0891553					
WATER-QUALITY DATA						
LAKE NAME: UNNAMED LAKE NO. 26 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	17.3					
MAXIMUM DEPTH (FEET):	76.0					
MAXIMUM WIDTH (MILES):	0.07					
MAXIMUM LENGTH (MILES):	0.38					
TRANSPARENCY (SECCHI DISC) (FEET):	8.8					
AIR TEMPERATURE (DEG C):	25.5					
Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
July						
06...	1457	.00	3900	7.6	27.5	7.5
06...	1458	2.00	3890	7.6	27.5	7.1
06...	1459	4.00	3900	7.6	27.5	6.9
06...	1500	6.00	3900	7.6	27.5	6.8
06...	1501	8.00	3910	7.6	27.5	6.6
06...	1502	10.0	4060	7.2	26.5	3.8
06...	1503	12.0	4090	6.8	23.0	1.2
06...	1504	14.0	4060	6.8	20.5	.5
06...	1505	16.0	4060	6.8	18.5	1.7
06...	1506	18.0	4040	6.9	16.5	3.7
06...	1507	20.0	4020	6.9	15.0	5.0
06...	1508	22.0	4020	6.9	13.5	6.1
06...	1509	24.0	4000	7.1	12.5	6.9
06...	1510	26.0	4000	7.1	12.0	7.2
06...	1511	28.0	3990	7.1	11.0	7.3
06...	1512	30.0	4020	7.1	10.5	7.2
06...	1513	32.0	4030	7.1	10.0	6.9
06...	1514	34.0	4050	7.0	10.0	6.7
06...	1515	36.0	4040	7.0	9.5	6.4
06...	1516	38.0	4050	7.0	9.0	6.1
06...	1517	40.0	4050	7.0	8.5	5.9
06...	1518	42.0	4050	7.0	8.0	5.8
06...	1519	44.0	4040	7.0	7.5	5.5
06...	1520	46.0	4030	7.0	7.0	5.2
06...	1521	48.0	4050	7.0	7.0	4.8
06...	1522	50.0	4040	6.9	6.5	4.2
06...	1523	52.0	4050	6.9	6.5	3.8
06...	1524	54.0	4050	6.9	6.5	3.2
06...	1525	56.0	4060	6.9	6.5	2.7
06...	1526	58.0	4070	6.9	6.5	2.4
06...	1527	60.0	4070	6.9	6.5	2.1
06...	1528	62.0	4070	6.9	6.0	2.0
06...	1529	64.0	4080	6.9	6.0	1.7

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 87 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380226089220301	WATER-QUALITY DATA					
LAKE LAT-LONG:	380212 0892203						
LAKE NAME:	UNNAMED LAKE NO. 6 NEAR PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	11.9			Spe- ci-fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	25.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	0.34	Aug.					
TRANSPARENCY (SECCHI DISC) (FEET):	7.2	02...	1205	.00	1540	7.7	31.5
COLOR:	DARK GREEN	02...	1206	2.00	1540	7.8	31.5
VEGETATION:	GRASSES, WOODS	02...	1207	4.00	1550	7.8	31.5
AIR TEMPERATURE (DEG C):	30.0	02...	1208	6.00	1550	7.8	31.0
REMARKS:	SOME EXPOSED SPOIL.	02...	1209	8.00	1560	7.7	31.0
		02...	1210	10.0	1580	7.2	29.0
		02...	1211	12.0	1610	6.9	26.0
		02...	1212	14.0	1670	6.7	22.0
		02...	1213	16.0	1720	6.7	17.5
		02...	1214	18.0	1750	6.7	15.0
		02...	1215	20.0	1840	6.7	13.0
		02...	1216	22.0	1930	6.7	12.5
		02...	1217	24.0	2010	6.7	11.5

## LAKE NO. 88 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380228089174501	WATER-QUALITY DATA					
LAKE LAT-LONG:	380221 0891704						
LAKE NAME:	UNNAMED LAKE NO. 22 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	72.5			Spe- ci-fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	63.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.14						
MAXIMUM LENGTH (MILES):	1.46	July					
TRANSPARENCY (SECCHI DISC) (FEET):	10.8	06...	1143	.00	2560	7.6	27.5
COLOR:	DARK GREEN	06...	1144	2.00	2570	7.6	27.5
AIR TEMPERATURE (DEG C):	23.0	06...	1145	4.00	2570	7.6	27.5
REMARKS:	TWO OUTLETS PRESENT.	06...	1146	6.00	2570	7.7	27.5
		06...	1147	8.00	2570	7.6	27.5
		06...	1148	10.0	2570	7.7	27.5
		06...	1149	12.0	2570	7.7	27.5
		06...	1150	14.0	2780	7.3	23.0
		06...	1151	16.0	2950	7.2	19.0
		06...	1152	18.0	3010	7.2	16.0
		06...	1153	20.0	3020	7.2	13.5
		06...	1154	22.0	3050	7.1	13.0
		06...	1155	24.0	3050	7.1	11.5
		06...	1156	26.0	3040	7.0	11.0
		06...	1157	28.0	3050	7.0	10.5
		06...	1158	30.0	3050	7.0	10.5
		06...	1159	32.0	3060	6.9	10.5
		06...	1200	34.0	3080	6.9	10.0
		06...	1201	36.0	3100	6.8	10.0
		06...	1202	38.0	3100	6.8	10.0
		06...	1203	40.0	3120	6.8	10.0
		06...	1204	42.0	3130	6.7	10.0
		06...	1205	44.0	3140	6.7	10.0
		06...	1206	46.0	3140	6.7	10.0
		06...	1207	48.0	3150	6.7	10.0
		06...	1208	50.0	3160	6.7	10.0
		06...	1209	52.0	3170	6.7	10.0
		06...	1210	54.0	3170	6.7	10.0
		06...	1211	56.0	3180	6.7	10.0
		06...	1212	58.0	4120	6.5	10.0
		06...	1213	60.0	4780	6.4	10.5
		06...	1214	62.0	4800	6.4	10.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 89 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380230089160601						
LAKE LAT-LONG:	380227 0891603						
LAKE NAME:	UNNAMED LAKE NO. 27 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	15.4	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	51.0	Date					
MAXIMUM WIDTH (MILES):	0.05						
MAXIMUM LENGTH (MILES):	0.60	July					
	06...	1418	.00	3660	7.7	28.0	7.6
	06...	1419	2.00	3680	7.7	28.0	7.3
TRANSPARENCY (SECCHI DISC) (FEET):	12.1	06...	1420	4.00	3680	7.7	28.0
	06...	1421	6.00	3670	7.7	28.0	7.3
	06...	1422	8.00	3680	7.7	28.0	7.3
COLOR:	DARK GREEN	06...	1423	10.0	3840	7.2	26.5
		06...	1424	12.0	4060	7.4	19.5
VEGETATION:	GRASSES	06...	1425	14.0	4060	7.4	17.0
AIR TEMPERATURE (DEG C):	26.0	06...	1426	16.0	4070	7.3	15.5
		06...	1427	18.0	4090	7.2	14.5
		06...	1428	20.0	4110	7.0	14.0
		06...	1429	22.0	4190	6.8	13.5
		06...	1430	24.0	4260	6.7	13.0
		06...	1431	26.0	4300	6.6	13.0
		06...	1432	28.0	4330	6.5	13.0
		06...	1433	20.0	4400	6.5	13.0
		06...	1434	32.0	4430	6.4	13.0
		06...	1435	34.0	4430	6.4	13.0
		06...	1436	36.0	4430	6.4	12.5
		06...	1437	38.0	4420	6.4	12.0
		06...	1438	40.0	4420	6.4	12.0
		06...	1439	42.0	4420	6.4	11.5
		06...	1440	44.0	4420	6.4	11.0
		06...	1441	46.0	4430	6.4	10.5
		06...	1442	48.0	4460	6.4	10.5
		06...	1443	50.0	4480	6.4	10.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 90 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380231089182001						
LAKE LAT-LONG:	380227 0891823						
WATER-QUALITY DATA							
LAKE NAME:	UNNAMED LAKE NO. 19 NEAR DU QUOIN, IL	Sampling Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ s/cm)	pH (stand- ard units)	Temper- ature (deg C)
LAKE SIZE (ACRES):	24.0						
MAXIMUM DEPTH (FEET):	79.0						
MAXIMUM WIDTH (MILES):	0.11						
MAXIMUM LENGTH (MILES):	0.53						
TRANSPARENCY (SECCHI DISC) (FEET):	8.2						
COLOR:	DARK GREEN						
VEGETATION:	GRASSES, WOODS, MARSHES						
AIR TEMPERATURE (DEG C):	28.0						
July							
07...	1414	.00	2770	7.7	28.0	8.2	
07...	1415	2.00	2770	7.7	27.5	8.2	
07...	1416	4.00	2770	7.7	27.5	8.1	
07...	1417	6.00	2770	7.7	27.5	8.1	
07...	1418	8.00	3160	7.6	27.0	9.3	
07...	1419	10.0	3870	7.1	21.5	--	
07...	1420	12.0	3880	7.0	17.0	--	
07...	1421	14.0	3920	6.7	12.5	.7	
07...	1422	16.0	3920	6.7	11.5	1.0	
07...	1423	18.0	3910	6.6	11.0	.1	
07...	1424	20.0	3910	6.6	11.0	.0	
07...	1425	22.0	3900	6.6	11.0	.0	
07...	1426	24.0	3910	6.6	11.0	.0	
07...	1427	26.0	3920	6.6	11.0	.0	
07...	1428	28.0	3910	6.6	11.0	.0	
07...	1429	30.0	3910	6.6	11.0	.0	
07...	1430	32.0	3910	6.6	11.0	.0	
07...	1431	34.0	3920	6.6	11.0	.0	
07...	1432	36.0	3920	6.6	11.0	.0	
07...	1433	38.0	3920	6.6	10.5	.0	
07...	1434	40.0	3920	6.6	10.5	.0	
07...	1435	42.0	3920	6.6	10.5	.0	
07...	1436	44.0	3920	6.6	10.5	.0	
07...	1437	46.0	3970	6.6	10.5	.0	
07...	1438	48.0	4020	6.6	10.0	.0	
07...	1439	50.0	4060	6.6	10.0	.0	
07...	1440	52.0	4080	6.5	10.0	.0	
07...	1441	54.0	4110	6.6	10.0	.0	
07...	1442	56.0	4120	6.6	10.0	.0	
07...	1443	58.0	4130	6.6	9.5	.0	
07...	1444	60.0	4140	6.6	9.5	.0	
07...	1445	62.0	4150	6.6	9.5	.0	
07...	1446	64.0	4150	6.6	9.5	.0	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 91 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380240089183701						
LAKE LAT-LONG:	380231 0891826						
LAKE NAME:	UNNAMED LAKE NO. 18 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	40.8			Sam-	Spe-	pH	Oxygen,
MAXIMUM DEPTH (FEET):	18.0		Time	pling	specific	(stand-	dis-
MAXIMUM WIDTH (MILES):	0.08	Date	depth	depth	conduct-	ard	solved
MAXIMUM LENGTH (MILES):	1.81		(feet)	(feet)	ance	units)	(mg/L)
TRANSPARENCY (SECCHI DISC) (FEET):	2.0	July			pH	Temper-	
COLOR:	MUDY BROWN	07...	1127	.00	(stand-	ature	
VEGETATION:	WOODS	07...	1128	2.00	ard	(deg C)	
AIR TEMPERATURE (DEG C):	26.0	07...	1129	4.00	units)		
		07...	1130	6.00			
		07...	1131	8.00			
		07...	1132	10.0			
		07...	1133	12.0			
		07...	1134	14.0			
		07...	1135	16.0			
REMARKS:	OUTLET PRESENT.						

## LAKE NO. 92 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380243089191001						
LAKE LAT-LONG:	380241 0891906						
LAKE NAME:	UNNAMED LAKE NO. 16 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	30.7			Sam-	Spe-	pH	Oxygen,
MAXIMUM DEPTH (FEET):	41.0		Time	pling	specific	(stand-	dis-
MAXIMUM WIDTH (MILES):	0.08	Date	depth	depth	conduct-	ard	solved
MAXIMUM LENGTH (MILES):	0.96		(feet)	(feet)	ance	units)	(mg/L)
TRANSPARENCY (SECCHI DISC) (FEET):	6.9	July			pH	Temper-	
COLOR:	DARK GREEN	11...	1425	.00	(stand-	ature	
AIR TEMPERATURE (DEG C):	33.0	11...	1426	2.00	ard	(deg C)	
REMARKS: THIN LAYER OF SCUM ON LAKE.	OUTLET PRESENT.						
		11...	1427	4.00			
		11...	1428	6.00			
		11...	1429	8.00			
		11...	1430	10.0			
		11...	1431	12.0			
		11...	1432	14.0			
		11...	1433	16.0			
		11...	1434	18.0			
		11...	1435	20.0			
		11...	1436	22.0			
		11...	1437	24.0			
		11...	1438	26.0			
		11...	1439	28.0			
		11...	1440	30.0			
		11...	1441	32.0			
		11...	1442	34.0			
		11...	1443	36.0			
		11...	1444	38.0			
		11...	1445	40.0			

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 93 - PERCY QUADRANGLE (FIG. 14)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:		LAKE NAME: UNNAMED LAKE NO. 2 NEAR JAMESTOWN, IL					
LAKE SIZE (ACRES):	16.9				Spec- cific con- duct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	17.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.15						
MAXIMUM LENGTH (MILES):	0.22						
TRANSPARENCY (SECCHI DISC) (FEET):	3.6						
June							
29...	1217		.00	2750	8.0	28.0	8.4
29...	1218		2.00	2770	8.2	28.0	8.0
29...	1219		4.00	2770	8.2	28.0	7.9
29...	1220		6.00	2770	8.2	28.0	7.9
29...	1221		8.00	2770	8.2	28.0	7.8
29...	1222		10.0	2830	7.9	27.0	4.6
29...	1223		12.0	2960	7.6	25.0	.4
29...	1224		14.0	3040	7.5	23.0	.1
29...	1225		16.0	3110	7.4	21.0	.1

## LAKE NO. 94 - DU QUOIN AND PYATTS QUADRANGLES (FIGS. 7, 16)

STATION ID:		WATER-QUALITY DATA					
LAKE LAT-LONG:		LAKE NAME: UNNAMED LAKE NO. 4 NEAR DU QUOIN, IL					
LAKE SIZE (ACRES)	44.2				Spec- cific con- duct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	53.0	Date	Time	Sam- pling depth (feet)			
MAXIMUM WIDTH (MILES):	0.93						
MAXIMUM LENGTH (MILES):	1.33						
TRANSPARENCY (SECCHI DISC) (FEET):	6.6						
COLOR:	DARK GREEN						
VEGETATION:	GRASSES						
AIR TEMPERATURE (DEG C):	33.0						
REMARKS: SHORT HIGHWALL AND GENTLY SLOPING SPOIL.							
June							
30...	1320		.00	3430	7.9	29.0	8.3
30...	1321		2.00	3430	7.9	29.0	8.3
30...	1322		4.00	3430	7.9	29.0	8.2
30...	1323		6.00	3430	7.9	29.0	8.3
30...	1324		8.00	3430	7.9	27.5	8.3
30...	1325		10.0	3440	7.9	27.5	8.3
30...	1326		12.0	3480	7.7	25.0	9.6
30...	1327		14.0	3530	7.6	22.0	8.7
30...	1328		16.0	3620	7.4	18.5	7.1
30...	1329		18.0	3660	7.3	16.5	5.7
30...	1330		20.0	3690	7.3	15.5	4.6
30...	1331		22.0	3730	7.1	14.0	3.0
30...	1332		24.0	3760	7.1	13.0	2.4
30...	1333		26.0	3800	6.9	12.5	1.6
30...	1334		28.0	3810	6.9	12.0	1.2
30...	1335		30.0	3820	6.8	11.5	.8
30...	1336		32.0	3830	6.8	11.5	.5
30...	1337		34.0	3830	6.8	11.5	.2
30...	1338		36.0	3830	6.8	11.0	.1
30...	1339		38.0	3820	6.8	11.0	.0
30...	1340		40.0	3820	6.8	11.0	.0
30...	1341		42.0	3810	6.8	10.5	.0
30...	1342		44.0	3820	6.8	10.5	.0
30...	1343		46.0	3820	6.8	10.5	.0
30...	1344		48.0	3820	6.8	10.5	.0
30...	1345		49.0	3820	6.9	10.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 95 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380301089180701						
LAKE LAT-LONG:	380253 0891805						
LAKE NAME:	UNNAMED LAKE NO. 20 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	11.2						
MAXIMUM DEPTH (FEET):	29.0	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.11						
MAXIMUM LENGTH (MILES):	0.31						
TRANSPARENCY (SECCHI DISC) (FEET):	12.8						
COLOR:	DARK TO LIGHT GREEN						
VEGETATION:	BRUSH, WOODS						
AIR TEMPERATURE (DEG C):	26.0						
REMARKS:	IRREGULAR SHORELINE. SEVERAL DEAD TREES IN WATER.						
		July					
		07...	1035	.00	2900	6.7	27.0
		07...	1036	2.00	2950	7.0	27.0
		07...	1037	4.00	2930	7.0	27.0
		07...	1038	6.00	3160	6.8	27.0
		07...	1039	8.00	3560	6.5	26.0
		07...	1040	10.0	3590	6.4	22.5
		07...	1041	12.0	3670	6.4	19.5
		07...	1042	14.0	3770	6.4	18.0
		07...	1043	16.0	3830	6.3	16.5
		07...	1044	18.0	3900	6.3	15.5
		07...	1045	20.0	3980	6.3	15.0
		07...	1046	22.0	4020	6.3	14.0
		07...	1047	24.0	4040	6.3	13.5
		07...	1048	26.0	4050	6.3	13.0
		07...	1049	28.0	4050	6.4	12.5

## LAKE NO. 96 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380310089180601						
LAKE LAT-LONG:	380308 0891805						
LAKE NAME:	UNNAMED LAKE NO. 21 NEAR DU QUOIN, IL						
LAKE SIZE (ACRES):	17.6						
MAXIMUM DEPTH (FEET):	30.0	Date	Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Oxygen, dis- solved (mg/L)
MAXIMUM WIDTH (MILES):	0.14						
MAXIMUM LENGTH (MILES):	0.66						
TRANSPARENCY (SECCHI DISC) (FEET):	10.8						
COLOR:	BLUE-GREEN TO DARK GREEN						
VEGETATION:	GRASSES, WOODS						
AIR TEMPERATURE (DEG C):	26.0						
REMARKS:	EVEN TO VERY IRREGULAR SHORELINE. SOME ISLANDS PRESENT.						
		July					
		07...	1240	.00	1890	7.3	28.0
		07...	1241	2.00	1890	7.4	28.0
		07...	1242	4.00	1900	7.4	27.5
		07...	1243	6.00	1900	7.4	27.5
		07...	1244	8.00	1900	7.3	27.5
		07...	1245	10.0	2250	6.9	26.5
		07...	1246	12.0	2300	6.8	23.0
		07...	1247	14.0	2300	6.8	19.5
		07...	1248	16.0	2310	6.8	17.0
		07...	1249	18.0	2300	6.8	14.5
		07...	1250	20.0	2310	6.9	13.0
		07...	1251	22.0	2310	6.9	12.0
		07...	1252	24.0	2340	6.9	11.0
		07...	1253	26.0	2400	7.0	11.0
		07...	1254	28.0	2490	7.0	10.5
		07...	1255	29.0	2530	7.0	10.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 97 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380310089184601							
LAKE LAT-LONG:	380305 0891843							
LAKE NAME:	UNNAMED LAKE NO. 17 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	13.8	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
MAXIMUM DEPTH (FEET):	39.0	Date						
MAXIMUM WIDTH (MILES):	0.11							
MAXIMUM LENGTH (MILES):	0.30	July						
		11...	1255	.00	834	8.2	30.5	8.4
		11...	1256	2.00	838	8.2	29.5	8.5
TRANSPARENCY (SECCHI DISC) (FEET):	14.8	11...	1257	4.00	839	8.2	29.5	8.4
		11...	1258	6.00	839	8.2	29.0	7.8
		11...	1259	8.00	841	8.1	28.5	7.7
COLOR:	DARK GREEN	11...	1300	10.0	842	8.0	28.5	7.3
		11...	1301	12.0	880	7.9	26.5	11.1
VEGETATION:	GRASSES	11...	1302	14.0	922	7.9	25.0	12.5
		11...	1303	16.0	941	7.8	21.0	9.7
AIR TEMPERATURE (DEG C):	32.5	11...	1304	18.0	943	7.9	18.5	9.4
		11...	1305	20.0	949	7.7	16.5	7.5
REMARKS:	IRREGULAR SHORELINE.	11...	1306	22.0	950	7.5	14.5	5.9
		11...	1307	24.0	946	7.4	13.0	4.2
		11...	1308	26.0	944	7.3	11.5	2.3
		11...	1309	28.0	943	7.2	10.5	.6
		11...	1310	30.0	941	7.1	10.0	.2
		11...	1311	32.0	948	7.1	9.5	.1
		11...	1312	34.0	953	7.1	8.5	.0
		11...	1313	36.0	961	7.0	8.0	.0
		11...	1314	38.0	979	6.9	8.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 98 - DU QUOIN AND PYATTS QUADRANGLES (FIGS. 7, 16)

STATION ID:	380314089145601							
LAKE LAT-LONG:	380301 0891458							
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	61.3	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu\text{s}/\text{cm}$ )	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)	
MAXIMUM DEPTH (FEET):	56.0	Date						
MAXIMUM WIDTH (MILES):	0.08	June						
MAXIMUM LENGTH (MILES):	1.44	30...	1147	.00	3210	7.4	28.0	8.2
		30...	1148	2.00	3230	7.6	27.5	7.7
TRANSPARENCY (SECCHI DISC) (FEET):	6.6	30...	1149	4.00	3220	7.6	27.0	8.0
		30...	1150	6.00	3240	7.6	26.5	7.7
		30...	1151	8.00	3300	7.3	25.5	8.4
COLOR:	DARK GREEN	30...	1152	10.0	3340	7.2	21.5	9.3
		30...	1153	12.0	3380	7.0	17.0	8.6
VEGETATION:	GRASSES	30...	1154	14.0	3400	6.9	15.5	7.6
		30...	1155	16.0	3420	6.8	14.5	6.2
AIR TEMPERATURE (DEG C):	30.0	30...	1156	18.0	3430	6.7	14.0	4.8
		30...	1157	20.0	3430	6.7	13.5	4.5
REMARKS: STEEP TO LEVEL SPOIL BANKS, WITH SOME ROCK HIGHWALLS.		30...	1158	22.0	3430	6.7	13.5	4.1
		30...	1159	24.0	3420	6.6	13.0	4.4
		30...	1200	26.0	3410	6.7	12.5	4.9
		30...	1201	28.0	3390	6.8	11.5	5.4
		30...	1202	30.0	3390	6.8	11.0	5.6
		30...	1203	32.0	3380	6.9	10.5	5.6
		30...	1204	34.0	3380	6.9	10.0	5.4
		30...	1205	36.0	3390	6.9	10.0	4.8
		30...	1206	38.0	3400	6.9	9.5	4.2
		30...	1207	40.0	3410	6.9	9.5	3.5
		30...	1208	42.0	3410	6.8	9.5	3.2
		30...	1209	44.0	3420	6.8	9.5	2.7
		30...	1210	46.0	3430	6.8	9.5	2.3
		30...	1211	48.0	3440	6.8	9.5	2.1
		30...	1212	50.0	3450	6.8	9.5	1.6
		30...	1213	52.0	3460	6.8	9.5	1.3
		30...	1214	54.0	3470	6.7	9.5	.9
		30...	1215	55.0	3470	6.7	9.5	.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

LAKE NO. 99 - PINCKNEYVILLE AND PYATTS QUADRANGLES (FIGS. 15, 16)

STATION ID: 380337089222001  
LAKE LAT-LONG: 380314 0892220 WATERS-SAMPLES

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LAKE NAME: UNNAMED LAKE NO. 5 AT PINCKNEYVILLE, IL

LAKE SIZE (ACRE8): 45.4

MAXIMUM DEPTH (FEET): 37.0

MAXIMUM WIDTH (MILES): 0.07

MAXIMUM LENGTH (MILES): 1.02

TRANSPARENCY (SECCHI DISC) (FEET): 6.2

COLOR: DARK GREEN

VEGETATION: WOODS

AIR TEMPERATURE (DEG C): 29.0

REMARKS: IRREGULAR SHORELINE.

	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance (μS/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
Aug.							
	02...	1033	.00	979	8.8	31.0	7.3
	02...	1034	2.00	980	8.9	30.5	7.0
	02...	1035	4.00	980	8.9	30.5	6.9
	02...	1036	6.00	984	8.8	30.5	6.5
	02...	1037	8.00	1100	8.1	26.5	5.7
	02...	1038	10.0	1180	6.9	24.0	4.6
	02...	1039	12.0	1270	8.0	20.5	3.1
	02...	1040	14.0	1490	8.1	16.0	1.7
	02...	1041	16.0	1680	8.0	13.0	2.8
	02...	1042	18.0	1920	7.9	11.5	.0
	02...	1043	20.0	2120	7.8	10.5	.0
	02...	1044	22.0	2280	7.9	10.0	.0
	02...	1045	24.0	2400	7.8	10.0	.0
	02...	1046	26.0	2510	7.8	10.0	.0
	02...	1047	28.0	2600	7.8	10.0	.0
	02...	1048	30.0	2700	7.8	10.0	.0
	02...	1049	32.0	2790	7.8	9.5	.0
	02...	1050	34.0	2840	7.8	9.5	.0
	02...	1051	36.0	3050	7.8	9.5	.0

LAKE NO. 100 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380338089160201	WATER-QUALITY DATA						
LAKE LAT-LONG:	380336 0891600							
LAKE NAME:	UNNAMED LAKE NO. 28 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	27.7							
MAXIMUM DEPTH (FEET):	30.0							
MAXIMUM WIDTH (MILES):	0.10							
MAXIMUM LENGTH (MILES):	0.73							
TRANSPARENCY (SECCHI DISC) (FEET):	7.2							
VEGETATION:	WOODS, BRUSH							
AIR TEMPERATURE (DEG C):	26.0							
REMARKS:	VERY IRREGULAR SHORELINE, SEVERAL ISLANDS. WATER PUMPED OUT FOR MINE OPERATIONS.							
		Time	Sam- pling depth (feet)	Spe- ci- fic con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen dis- olved (mg/L)	
	Date							
	July							
	08...	0922	.00	3050	7.4	26.5	8.2	
	08...	0923	2.00	3050	7.2	26.5	7.7	
	08...	0924	4.00	3050	7.0	26.5	7.5	
	08...	0925	6.00	3090	6.9	26.0	7.0	
	08...	0926	8.00	3130	6.6	24.5	6.9	
	08...	0927	10.0	3130	6.7	20.5	7.7	
	08...	0928	12.0	3170	6.8	17.0	8.0	
	08...	0929	14.0	3190	6.8	15.0	7.5	
	08...	0930	16.0	3230	6.7	13.5	6.9	
	08...	0931	18.0	3260	6.6	12.5	6.2	
	08...	0932	20.0	3280	6.6	11.5	5.4	
	08...	0933	22.0	3320	6.5	11.0	4.5	
	08...	0934	24.0	3360	6.4	10.5	2.9	
	08...	0935	26.0	3410	6.4	10.0	1.8	
	08...	0936	28.0	3530	6.4	10.0	0.0	
	08...	0937	29.0	3650	6.4	9.5	0.0	

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 101 - PERCY QUADRANGLE (FIG. 14)

STATION ID:	380342089334401						
LAKE LAT-LONG:	380327 0893352						
LAKE NAME:	UNNAMED LAKE NO. 1 NEAR CUTLER, IL						
LAKE SIZE (ACRES):	24.0						
MAXIMUM DEPTH (FEET):	17.0						
MAXIMUM WIDTH (MILES):	0.06						
MAXIMUM LENGTH (MILES):	0.72						
TRANSPARENCY (SECCHI DISC) (FEET):	2.3						
AIR TEMPERATURE (DEG C):	34.0						
REMARKS:	LAKE FORMED IN SPOIL DEPRESSION.						
WATER-QUALITY DATA							
	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	Oxida- tion reduc- tion poten- tial (mv)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
	June						
	23...	1237	.00	140	139	30.5	8.8
	23...	1238	3.30	140	146	29.0	6.8
	23...	1239	4.90	140	-115	25.5	2.1
	23...	1240	6.60	140	-119	25.5	1.9
	23...	1241	9.80	130	-137	21.5	1.7
	23...	1242	13.1	140	-162	19.0	1.8
	23...	1243	16.4	160	-167	17.0	1.8

## LAKE NO. 102 - PERCY QUADRANGLE (FIG. 14)

STATION ID:	380348089332901						
LAKE LAT-LONG:	380252 0893328						
LAKE NAME:	EAST C STREAMLINE LAKE NEAR CUTLER, IL						
LAKE SIZE (ACRES):	124.						
MAXIMUM DEPTH (FEET):	92.0						
MAXIMUM WIDTH (MILES):	0.08						
MAXIMUM LENGTH (MILES):	3.08						
TRANSPARENCY (SECCHI DISC) (FEET):	4.3						
VEGETATION:	GRASSES						
REMARKS:	STEEP TO GENTLE SPOIL. TWO OUTLETS PRESENT.						
WATER-QUALITY DATA							
	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Oxida- tion reduc- tion poten- tial (mv)	Temper- ature (deg C)
	June						
	23...	1035	.00	3100	8.1	178	27.5
	23...	1036	3.30	3090	8.1	173	27.0
	23...	1037	6.60	3100	8.1	173	27.0
	23...	1038	9.80	3150	7.6	184	23.5
	23...	1039	13.0	3190	7.5	186	21.5
	23...	1040	16.4	3380	7.4	186	18.5
	23...	1041	19.7	3600	7.5	183	15.5
	23...	1042	23.0	3780	7.4	182	14.0
	23...	1043	26.2	3900	7.4	181	13.5
	23...	1044	29.5	4070	7.4	179	13.0
	23...	1045	32.8	4250	7.3	176	12.5
	23...	1046	36.1	4560	7.2	177	12.5
	23...	1047	39.4	4770	7.2	178	12.5
	23...	1048	42.6	5080	7.1	103	12.5
	23...	1049	45.9	5240	7.1	-31	12.5
	23...	1050	49.2	5440	7.0	-73	12.0
	23...	1051	52.5	5490	7.0	-96	12.0
	23...	1052	55.8	5740	7.0	-110	12.5
	23...	1053	59.0	6250	7.0	-125	13.0
	23...	1054	62.3	6510	7.0	-131	13.5
	23...	1055	65.6	6510	7.0	-135	13.5
	23...	1056	68.9	6540	7.0	-141	13.5
	23...	1057	72.2	6530	7.0	-142	14.0
	23...	1058	75.5	6500	7.0	-148	14.0
	23...	1059	78.7	6390	7.0	-150	14.0
	23...	1100	82.0	6570	7.0	-150	14.0
	23...	1101	85.3	6620	7.0	-151	14.0
	23...	1102	88.6	6630	7.0	-152	14.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 103 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:		380420089161601						
LAKE LAT-LONG:		380412 0891610						
WATER-QUALITY DATA								
LAKE NAME:	UNNAMED LAKE NO. 29 NEAR DU QUOIN, IL							
LAKE SIZE (ACRES):	23.6							
MAXIMUM DEPTH (FEET):	53.0							
MAXIMUM WIDTH (MILES):	0.16							
MAXIMUM LENGTH (MILES):	0.27	Date	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
TRANSPARENCY (SECCHI DISC) (FEET):	14.8	July						
COLOR:	DARK GREEN	08...	1024	.00	2650	7.9	27.0	8.3
VEGETATION:	GRASSES	08...	1025	2.00	2650	7.8	26.5	7.8
REMARKS:	MUCH AQUATIC VEGETATION.	08...	1026	4.00	2660	7.9	26.5	7.7
		08...	1027	6.00	2650	7.9	26.5	7.7
		08...	1028	8.00	2650	7.9	26.5	7.7
		08...	1029	10.0	2660	7.8	26.5	7.5
		08...	1030	12.0	2660	7.8	26.5	7.3
		08...	1031	14.0	2680	7.7	25.0	9.5
		08...	1032	16.0	2650	7.4	21.0	6.7
		08...	1033	18.0	2610	7.4	18.5	5.2
		08...	1034	20.0	2590	7.3	16.0	4.5
		08...	1035	22.0	2560	7.3	14.0	4.1
		08...	1036	24.0	2550	7.2	12.5	3.6
		08...	1037	26.0	2540	7.2	11.5	3.0
		08...	1038	28.0	2550	7.1	11.0	2.6
		08...	1039	30.0	2540	7.1	11.0	2.5
		08...	1040	32.0	2530	7.1	10.5	2.6
		08...	1041	34.0	2530	7.1	10.0	2.6
		08...	1042	36.0	2520	7.1	9.5	2.5
		08...	1043	38.0	2520	7.1	9.0	2.2
		08...	1044	40.0	2510	7.1	9.0	1.5
		08...	1045	42.0	2520	7.1	9.0	.8
		08...	1046	44.0	2520	7.0	8.5	.0
		08...	1047	46.0	2540	7.1	8.5	.0
		08...	1048	48.0	2560	7.1	8.0	.0
		08...	1049	50.0	2590	7.1	8.0	.0
		08...	1050	52.0	2620	7.1	8.0	.0

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 104 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380528089210101						
LAKE LAT-LONG:	380521 089210S						
LAKE NAME:	UNNAMED LAKE NO. 3 NEAR PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	18.8	Time	Sam- pling depth (feet)	Spe- cific con- duct- ance ( $\mu$ S/cm)	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)
MAXIMUM DEPTH (FEET):	56.0	Date					
MAXIMUM WIDTH (MILES):	0.11	June					
MAXIMUM LENGTH (MILES):	0.51	27...	1429	.00	372	8.5	28.5
		27...	1430	2.00	374	8.6	28.5
TRANSPARENCY (SECCHI DISC) (FEET):	5.9	27...	1431	4.00	374	8.6	28.0
		27...	1432	6.00	374	8.5	28.0
		27...	1433	8.00	384	8.1	25.5
COLOR:	DARK GREEN	27...	1434	10.0	387	7.8	23.0
		27...	1435	12.0	396	7.6	20.0
VEGETATION:	GRASSES	27...	1436	14.0	405	7.5	17.5
		27...	1437	16.0	410	7.4	16.0
REMARKS:	GENTLY SLOPING SPOIL. OUTLET PRESENT.	27...	1438	18.0	411	7.3	15.0
		27...	1439	20.0	422	7.3	14.5
		27...	1440	22.0	438	7.3	13.5
		27...	1441	24.0	461	7.3	12.5
		27...	1442	26.0	487	7.2	11.0
		27...	1443	28.0	494	7.3	10.5
		27...	1444	30.0	503	7.2	10.0
		27...	1445	32.0	504	7.2	9.5
		27...	1446	34.0	509	7.1	9.0
		27...	1447	36.0	512	7.1	9.0
		27...	1448	38.0	513	7.1	9.0
		27...	1449	40.0	511	7.1	9.0
		27...	1450	42.0	510	7.1	9.0
		27...	1451	44.0	514	7.1	9.0
		27...	1452	46.0	513	7.1	9.0
		27...	1453	48.0	512	7.1	9.0
		27...	1454	50.0	514	7.1	8.5
		27...	1455	52.0	514	7.1	8.5
		27...	1456	54.0	515	7.1	8.5
		27...	1457	55.0	515	7.1	8.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 105 - PINCKNEYVILLE AND PYATTS QUADRANGLES (FIGS. 15, 16)

STATION ID:	380530089223101						
LAKE LAT-LONG:	380526 0892209						
LAKE NAME:	UNNAMED LAKE NO. 1 AT PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	27.6			Sam-	Spe-		
MAXIMUM DEPTH (FEET):	32.0			pling	con-	pH	Oxygen,
MAXIMUM WIDTH (MILES):	0.11			depth	duct-	(stand-	dis-
MAXIMUM LENGTH (MILES):	0.49			(feet)	ance	ard units)	solved
TRANSPARENCY (SECCHI DISC) (FEET):	0.3				( $\mu\text{S}/\text{cm}$ )	(deg C)	(mg/L)
VEGETATION:	MARSHES						
AIR TEMPERATURE (DEG C):	27.0						
REMARKS:	MUCH SEDIMENT IN WATER. INLET AND OUTLETS PRESENT. EVEN TO IRREGULAR SHORELINE.						
		June					
		30...	0930	.00	449	6.5	25.5
		30...	0931	2.00	340	6.4	23.5
		30...	0932	4.00	332	6.4	23.5
		30...	0933	6.00	304	6.4	23.5
		30...	0934	8.00	302	6.4	23.5
		30...	0935	10.0	297	6.4	23.5
		30...	0936	12.0	288	6.5	23.5
		30...	0937	14.0	288	6.4	23.5
		30...	0938	16.0	286	6.5	23.5
		30...	0939	18.0	284	6.5	23.5
		30...	0940	20.0	283	6.5	23.5
		30...	0941	22.0	282	6.5	23.5
		30...	0942	24.0	282	6.5	23.5
		30...	0943	26.0	281	6.5	23.5
		30...	0944	28.0	281	6.5	23.5
		30...	0945	30.0	281	6.5	23.5
		30...	0946	31.0	284	6.5	23.5

## LAKE NO. 106 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380531089215201						
LAKE LAT-LONG:	380512 0892145						
LAKE NAME:	UNNAMED LAKE NO. 2 AT PINCKNEYVILLE, IL						
LAKE SIZE (ACRES):	23.5			Sam-	Spe-		
MAXIMUM DEPTH (FEET):	37.0			pling	con-	pH	Oxygen,
MAXIMUM WIDTH (MILES):	0.05			depth	duct-	(stand-	dis-
MAXIMUM LENGTH (MILES):	0.74			(feet)	ance	ard units)	solved
TRANSPARENCY (SECCHI DISC) (FEET):	3.9				( $\mu\text{S}/\text{cm}$ )	(deg C)	(mg/L)
		June					
		27...	1543	.00	630	8.1	29.5
		27...	1544	2.00	632	8.1	29.0
		27...	1545	4.00	633	8.1	29.0
		27...	1546	6.00	634	8.1	28.5
		27...	1547	8.00	648	7.6	26.5
		27...	1548	10.0	678	7.3	22.5
		27...	1549	12.0	735	7.2	18.5
		27...	1550	14.0	820	7.0	16.5
		27...	1551	16.0	924	6.9	13.5
		27...	1552	18.0	999	6.8	12.0
		27...	1553	20.0	1070	6.8	11.5
		27...	1554	22.0	1160	6.7	11.0
		27...	1555	24.0	1210	6.7	10.5
		27...	1556	26.0	1230	6.7	10.0
		27...	1557	28.0	1380	6.6	10.0
		27...	1558	30.0	1880	6.5	9.5
		27...	1559	32.0	2220	6.5	9.5
		27...	1600	34.0	2390	6.4	9.5
		27...	1601	36.0	2450	6.4	9.5

Table 2.--Site descriptions and physical-chemical measurements of selected lakes in Area 35--Continued

## LAKE NO. 107 - PYATTS QUADRANGLE (FIG. 16)

STATION ID:	380556089205601							
LAKE LAT-LONG:	380548 0892056							
WATER-QUALITY DATA								
LAKE NAME:	UNNAMED LAKE NO. 4 NEAR PINCKNEYVILLE, IL	Specific conductance ( $\mu\text{S}/\text{cm}$ )	pH (stand- ard units)	Temper- ature (deg C)	Oxygen, dis- solved (mg/L)			
LAKE SIZE (ACRES):	41.4	Sam- pling depth (feet)						
MAXIMUM DEPTH (FEET):	43.0	Date	Time					
MAXIMUM WIDTH (MILES):	0.10							
MAXIMUM LENGTH (MILES):	0.79	June						
TRANSPARENCY (SECCHI DISC) (FEET):	2.6	27...	1323	.00	494	8.4	28.0	7.0
COLOR:	BROWN	27...	1324	2.00	496	8.3	27.5	7.2
VEGETATION:	GRASSES	27...	1325	4.00	497	8.3	27.5	6.3
AIR TEMPERATURE (DEG C):	27.5	27...	1326	6.00	496	7.9	26.0	3.0
REMARKS: GENTLY SLOPING SPOIL BANKS.		27...	1327	8.00	506	7.6	24.0	.4
		27...	1328	10.0	504	7.4	21.0	.2
		27...	1329	12.0	509	7.3	18.0	.2
		27...	1330	14.0	511	7.3	16.0	.2
		27...	1331	16.0	519	7.2	15.0	.2
		27...	1332	18.0	534	7.1	13.5	.6
		27...	1333	20.0	550	7.1	12.5	1.6
		27...	1334	22.0	563	7.1	11.0	2.2
		27...	1335	24.0	570	7.1	10.5	2.2
		27...	1336	26.0	583	7.1	10.0	1.7
		27...	1337	28.0	596	7.1	9.5	1.4
		27...	1338	30.0	607	7.1	9.0	.8
		27...	1339	32.0	651	7.0	9.0	.2
		27...	1340	34.0	675	7.0	9.0	.0
		27...	1341	36.0	702	7.0	9.0	.0
		27...	1342	38.0	713	6.9	8.5	.0
		27...	1343	40.0	725	7.0	8.5	.0
		27...	1344	42.0	725	7.0	8.5	.0

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